
W I L L I A M S R E S E A R C H (TM)

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MPSrch_pp protein - protein database search, using Smith-Waterman algorithm

Run on: Thu Dec 23 10:17:26 1999; MasPar time 3.21 Seconds
Tabular output not generated. 39.762 Million cell updates/sec

Title: >US-09-177-843-1

Description: (1-6) from US09177843.pep

Perfect Score: 41

Sequence: 1 GRGDSF 6

Scoring table: PAM 150

Gap 15

Searched: 170751 seqs, 2126608 residues

Post-processing: Minimum Match 0%

Listing first 1000 summaries

Maximum DB seq length 6

Database: a-geneseq35

1:part1 2:part2 3:part3 4:part4 5:part5 6:part6 7:part7
8:part8 9:part9 10:part10 11:part11 12:part12 13:part13
14:part14 15:part15 16:part16 17:part17 18:part18
19:part19 20:part20 21:part21 22:part22 23:part23
24:part24 25:part25 26:part26 27:part27 28:part28
29:part29 30:part30 31:part31 32:part32 33:part33
34:part34 35:part35 36:part36 37:part37 38:part38
39:part39

Statistics: Mean 13.672; Variance 32.125; scale 0.426

Pred. No. is the number of results predicted by chance to have a
score greater than or equal to the score of the result being printed,
and is derived by analysis of the total score distribution.

SUMMARIES

Result No.	Score	Query Match	Length	ID	Description	Pred. No.
1	41	100.0	6	39	W86167	Peptide used in gel c
2	41	100.0	6	18	R99889	RGD-contg. synthetic
3	41	100.0	6	5	R25425	Peptide deriv. contg.
4	41	100.0	6	2	R24212	Fragment of tenascin-
5	41	100.0	6	17	R88570	RGD-containing sequen
6	41	100.0	6	17	R92740	RGD-containing sequen
7	41	100.0	6	6	R29158	PEG-contg. peptide de
8	41	100.0	6	8	R44046	RGD peptide derivativ
9	41	100.0	6	7	R35465	Propene-amide deriv.
10	41	100.0	6	35	W1248	Peptide sequence of t
11	41	100.0	6	35	W79658	Cyclo(1,6)-Gly-Arg-Gl
12	41	100.0	6	5	R29061	Peptide contg. RGD mo
13	41	100.0	6	2	R06455	Fibronectin derived R
14	41	100.0	6	13	R71456	Competitor fibronecti
15	41	100.0	6	5	R26814	Polyethylene glycol d

6	5	R29063	Peptide contg. RGD mo
6	11	R57890	Binding site derived
6	27	W35452	Non-dendritic peptide
6	6	GRGDSF	synthetic pept
6	1	R04612	Antiviral agent.
6	19	W01130	RGD peptide 1 for gli
6	36	W66818	Peptide useful for al
6	37	W0545	CS-1 peptide fragment
6	33	W65003	Synthetic osteoclast
6	28	W45490	Targeting ligand dire
6	5	R26807	Propen-amido peptide
6	7	R37029	Peptide for isolating
6	7	R36710	Adhesion formation pr
6	7	R36708	Adhesion formation pr
6	4	R24241	Activation independen
6	31	W51239	Alpha v beta 3 recept
6	28	W34089	Beta-1 integrin cell
6	29	W45920	Control peptide #7.
6	19	W03680	Fibronectin elution p
6	16	R94570	RGD peptide.
6	24	W25186	RGD-peptide capable o
6	30	W45883	Peptide membrane bind
6	9	R49801	Sequence of peptide w
6	5	R29070	Gelatin deriv. peptid
6	5	R29054	Peptide lipid contg.
6	5	R29068	Peptide contg. RGD mo
6	15	R80966	RGD contg. peptide us
6	5	R27033	Peptide lipid contg.
6	14	R70478	Cancer metastasis inh
6	21	W15598	Platelet aggregation
6	7	R36712	Adhesion formation pr
6	12	R70654	Synthetic RGD peptide
6	19	W07431	Synthetic, weak, tumo
6	18	W03484	Alpha(5)-Beta(1) inte
6	4	R22969	Cell adhesive peptide
6	31	W57198	RGD-containing peptid
6	5	R29056	Peptide contg. RGD mo
6	31	W48597	Integrin receptor ant
6	24	W25182	RGD-peptide capable o
6	7	R37834	Cell adhesion motif e
6	6	R32387	Fibrinogen fragment w
6	14	R79077	Alpha5/beta1 integrin
6	18	R99890	Control synthetic pep
6	39	W86168	Peptide used in gel c
6	1	R04613	Antiviral agent.
6	14	R79079	Integrin binding cont
6	25	W11185	Control peptide.
6	36	W66843	Peptide useful for al
6	18	W03491	Alpha(5)-Beta(1) inte
6	19	W07429	Control peptide used
6	28	W34090	Peptide SEQ ID NO:2 f
6	13	R71457	Control hexapeptide t
6	19	W07430	Synthetic, preferred
6	39	W84459	RGD peptide that stim
6	8	R7384	PH-30 beta disintegr
6	16	R94571	RGD peptide.
6	7	R36709	Adhesion formation pr
6	2	R11506	Cell attachment promo
6	1	R04871	Peptide from fibronec
6	24	W25181	RGD-peptide capable o
6	19	W07432	Synthetic, weak, tumo
6	7	R36711	Adhesion formation pr
5	14	R70474	Cancer metastasis inh
5	5	R26813	Polyethylene glycol d
5	12	R70655	Synthetic RGD peptide
6	14	R70475	Cancer metastasis inh
6	31	W48518	Integrin receptor ant
6	37	W68568	Conformationally cons
6	36	W6827	Peptide useful for al
6	5	R29075	Gelatin deriv. peptid
6	31	W48577	Integrin receptor ant
6	16	R96371	RGD cyclic peptide, T
6	5	R25319	Cell contact inhibito

89 33 80.5 5 27 W43306 Epitope found on oste 7.55e+02
 90 33 80.5 5 8 R44045 RGD peptide derivativ 7.55e+02
 91 33 80.5 5 31 W51241 Peptide which inhibit 7.55e+02
 92 33 80.5 5 33 W65001 Synthetic angiogenesi 7.55e+02
 93 33 80.5 5 7 R34451 Fibronectin-like bind 7.55e+02
 94 33 80.5 5 5 R29051 Peptide lipid contg. 7.55e+02
 95 33 80.5 5 1 R07442 Peptide with anti-met 7.55e+02
 96 33 80.5 5 9 R48654 RGD containing peptid 7.55e+02
 97 33 80.5 5 10 R5076 Fibronectin gelatin b 7.55e+02
 98 33 80.5 5 14 R70477 Cancer metastasis inh 7.55e+02
 99 33 80.5 5 8 R37131 RGD peptide deriv. #2 7.55e+02
 100 33 80.5 5 24 W52177 RGD-peptide capable o 7.55e+02
 101 33 80.5 5 5 R27030 Peptide lipid contg. 7.55e+02
 102 33 80.5 5 7 R35463 Propene-amide deriv. 7.55e+02
 103 33 80.5 5 1 R04610 Antiviral agent. 7.55e+02
 104 33 80.5 5 13 R62948 RGD contg. peptide is 7.55e+02
 105 33 80.5 5 5 R4516 Platelet antagonist p 7.55e+02
 106 33 80.5 5 7 R36714 Adhesion formation pr 7.55e+02
 107 33 80.5 6 35 W79653 Cyclo(1-alpha, 6-gamm 7.55e+02
 108 33 80.5 6 37 W68569 Conformationally cons 7.55e+02
 109 33 80.5 6 8 R39600 Arg-Gly-Asp-contg. pe 7.55e+02
 110 33 80.5 6 14 R70482 Cancer metastasis inh 7.55e+02
 111 33 80.5 6 18 R28858 Fibronectin fragment 7.55e+02
 112 33 80.5 6 9 R48653 RGD containing peptid 7.55e+02
 113 33 80.5 6 31 W36676 Peptide derived from 7.55e+02
 114 32 78.0 5 27 W43308 Control peptide. 1.01e+03
 115 32 78.0 5 1 R04611 Antiviral agent. 1.01e+03
 116 32 78.0 5 8 R47385 PH-30 beta disintegr 1.01e+03
 117 32 78.0 5 36 W68829 Peptide useful for al 1.01e+03
 118 32 78.0 6 16 R36377 RGD cyclic peptide, T 1.01e+03
 119 31 75.6 5 5 R27032 Peptide lipid contg. 1.34e+03
 120 31 75.6 5 5 R29053 Peptide lipid contg. 1.34e+03
 121 31 75.6 5 5 R24517 Platelet antagonist p 1.34e+03
 122 31 75.6 6 35 W79659 Cyclo(1,6)-Pro-Arg-gl 1.34e+03

Note: Post-processor removed 878 summaries from list due to search parameters chosen.

ALIGNMENTS

RESULT 1
 ID W86167 standard; peptide; 6 AA.
 AC W86167;
 DT 04-MAR-1999 (first entry)
 DE Peptide used in gel contraction assays.
 KW Wound contraction; reduction; inhibition; tissue regeneration; scar;
 KW wound; joint motion; body deformation; gel contraction.
 OS Synthetic.
 PN US5851994-A.
 PD 22-DEC-1998.
 PF 06-JUN-1995; 473025.
 PR 06-JUN-1995; US-473025.
 PR 28-APR-1994; US-234979.
 PA (LJOL-) LA JOLIA CANCER RES FOUND.
 PI Polarek J, Schreiber R;
 DR WPI; 99-080478/07.
 PT Inhibition of wound contraction - with peptide derivatives rich in
 PT basic amino acids
 PS Example 2; Column 13; 16pp; English.
 CC The invention provides methods for reduction or inhibition of wound
 CC contraction that comprises administration of a peptide having more than
 CC 3 consecutive basic amino acid residues. Alternatively, the peptide
 CC contains the amino acid sequence Arg-Gly-Asp and a basic amino acid
 CC sequence, or the peptide comprises 6-30 amino acids in which at least
 CC 4 out of a sequence of 6 consecutive amino acids are basic amino acids.
 CC The method is used to allow normal tissue regeneration without excessive
 CC scar formation which, in the case of large wounds, can result in loss of
 CC joint motion or major body deformation. This peptide is used in gel
 CC contraction assays along with the claimed peptides (W86170-83) to
 CC determine the activity of a peptide to reduce or inhibit gel contraction.
 CC Sequence 6 AA;

Query Match 100.0%; Score 41; DB 39; Length 6;

Best Local Similarity 100.0%; Pred. No. 6.60e+01;
 Matches 6; Conservative 0; Mismatches 0; Indels 0; Gaps 0;

Db 1 grgds 6
 QY 1 GRGDSP 6

RESULT 2

ID R9889 standard; peptide; 6 AA.
 AC R9889;
 DT 05-NOV-1996 (first entry)
 DE RGD-contg. synthetic peptide ligand.
 KW fibrinogen; blood clotting; GPIIb-IIIa receptor; binding; complex;
 KW epitope; exposed; monoclonal antibody.
 OS Synthetic.
 PN US5470738-A.
 PD 28-NOV-1995.
 PF 08-JUL-1987; 070953.
 PR 08-JUL-1987; US-070953.
 PR 31-MAR-1988; US-175342.
 PR 03-OCT-1989; US-417565.
 PR 04-OCT-1993; US-131320.
 PA (SCRI) SCRIPPS RES INST.
 PI Freilinger AL, Ginsberg MH, Plov EF;
 WPI; 96-019874/02.
 DR Monoclonal antibodies specific for ligand-bound GPIIb-IIIa receptor
 PT - useful for detection of clotting disorders and thrombi
 PS Example 1; Column 20; 20pp; English.
 CC Monoclonal antibodies specific for a ligand-induced binding site on
 CC GPIIb, esp. one induced in a platelet-associated GPIIb-IIIa/fibrinogen
 CC complex are claimed. The Mab binds an epitope exposed upon binding of
 CC the ligand and receptor. The epitope is not present on non-bound ligand
 CC or receptor. The Mabs are useful to prevent blood clotting and in
 CC diagnostics. The present sequence is a synthetic RGD-contg. peptide
 CC ligand.
 CC Sequence 6 AA;

Query Match 100.0%; Score 41; DB 18; Length 6;

Best Local Similarity 100.0%; Pred. No. 6.60e+01;
 Matches 6; Conservative 0; Mismatches 0; Indels 0; Gaps 0;

Db 1 grgds 6
 QY 1 GRGDSP 6

RESULT 3

ID R25425 standard; peptide; 6 AA.
 AC R25425;
 DT 03-JAN-1993 (first entry)
 DE Peptide deriv. contg. RGD motif.
 KW Phosphodiester; liposomes; micelles; fibronectin; cell adhesion;
 KW targeting; tumour metastasis; agglutination; platelets; lymphocytes.
 OS Synthetic.
 PN J04164095-A.
 PD 09-JUN-1992.
 PF 26-OCT-1990; 289490.
 PR 26-OCT-1990; JP-289490.
 PA (FUJIF) FUJIFILM PHOTO FILM CO LTD.
 DR WPI; 92-239950/29.
 PT New peptide contg. arginine-glycine-aspartic acid sequence
 PT useful in prepn. of liposome or micelles used to suppress tumour
 PT metastasis, since sequence is activation site of fibronectin
 PT Example 1; Page 4; 9pp; Japanese.
 CC The peptide is part of a phosphodiester bond which also comprises a
 CC hydrophobic organic gp. e.g. an isoprenoid or glycerolipid. The
 CC new derivs. of the peptide contg. the Arg-Gly-Asp sequence are
 CC useful for the prepn. of liposomes or micelles contg. the RGD
 CC sequence. The RGD sequence is an activation site of fibronectin
 CC which is a cell adhesion moi. The liposomes are useful for the
 CC suppression of tumour metastasis, agglutination of platelets, and
 CC activation of lymphocytes. They are useful for targeting anti-

CC tumour drugs onto tumours.
 CC See also R25426;
 SQ Sequence 6 AA;

Query Match 100.0%; Score 41; DB 5; Length 6;
 Best Local Similarity 100.0%; Pred. No. 6.60e+01;
 Matches 6; Conservative 0; Mismatches 0; Indels 0; Gaps 0;

Db 1 grgdsp 6
 |||||
 QY 1 GRGDSP 6

RESULT 4

ID R24212 standard; Protein; 6 AA.
 AC R24212;
 DT 18-NOV-1992 (first entry)
 DE Fragment of tenascin-related peptide.
 KW Tenascin; related peptide; cell attachment; antibody; angiogenesis;
 KW tumour metastasis; solid matrix; prosthetic device; vascular graft;
 KW percutaneous device.
 PN W09207872-A.
 PD 14-MAY-1992.
 PF 29-OCT-1991; U08018.
 PR 29-OCT-1990; US-605920.
 PR 30-OCT-1990; US-605667.
 PR (CALB-) CALIFORNIA INST BIOLOGICAL RES.
 PA Bourdon MA;
 PI WPI; 92-183625/22.
 DR New tenascin-related peptides - modulate cell attachment to
 PT tenascin, useful in inhibition of tumour metastasis and
 PT angiogenesis
 PS Disclosure; page 8; 60pp; English.
 CC The peptide may form an N- or C-terminal fragment of the generic
 CC peptide of R24192, which is a tenascin-related peptide. This
 CC peptide mimics the ability of tenascin to promote cell attachment.
 CC The peptide and antibodies raised to it can be used to modulate cell
 CC attachment to tenascin, esp. to inhibit tumour metastasis and
 CC angiogenesis. The peptide is pref. attached to a solid matrix, eg
 CC collagen, nitrocellulose, polyester, glass, synthetic resin, long-chain
 CC polysaccharide or synthetic resin fibre. It is esp. operatively linked
 CC to a solid matrix forming a prosthetic device, percutaneous device,
 CC vascular graft, etc. For topical admin. it is formulated into a
 CC lotion, saline, gel, colloid, powder etc.
 SQ Sequence 6 AA;

Query Match 100.0%; Score 41; DB 2; Length 6;
 Best Local Similarity 100.0%; Pred. No. 6.60e+01;
 Matches 6; Conservative 0; Mismatches 0; Indels 0; Gaps 0;

Db 1 grgdsp 6
 |||||
 QY 1 GRGDSP 6

RESULT 5

ID R88570 standard; peptide; 6 AA.
 AC R88570;
 DT 04-SEP-1996 (first entry)
 DE RGD-containing sequence, for controlling cell proliferation.
 KW Laminin-derived peptide; bioartificial; regeneration; nerve;
 KW 3-D hydrogel extracellular matrix; proliferation; neurite;
 KW replacement; cartilage; tendon; muscle; bone; skin.
 OS Synthetic.
 FH Key Location/Qualifiers
 FT peptide 2..4 /note= "Claimed core peptide, claim 2"
 PN W09602286-A1.
 PD 01-FEB-1996.
 PF 20-JUL-1995; U09282.
 PR 20-JUL-1994; US-280646.
 PR (CYTO-) CYTOTHERAPEUTICS INC.
 PI Aebischer P, Bellamkonda RV, Ranieri JP;

DR WPI; 96-105660/11.
 PT Bio-artificial 3-D hydrogel extracellular matrix comprising hydrogel
 PT derivatised with adhesion molecules - useful for promoting in vivo
 PT regeneration of severed nerves, tissue replacement and cell
 PT manipulation
 PS Claim 42; Page 497; 65pp; English.
 CC The sequences given in R88563-71 are laminin-derived peptides which
 CC were used in the bioartificial 3-D hydrogel extracellular matrix
 CC of the invention to control the distribution of cells. These peptides
 CC are particularly useful in promoting cellular proliferation in neurites.
 CC These peptides are used to derivatise the hydrogel. The hydrogel is a
 CC polysaccharide and has a pore radius of > 120 nm, pref. 150 nm. The
 CC hydrogel is useful for promoting in vivo regeneration of a severed
 CC nerve. It may have cells suspended in it and may be used to promote
 CC in vivo replacement of cartilage, tendon, muscle, bone or skin.
 SQ Sequence 6 AA;

Query Match 100.0%; Score 41; DB 17; Length 6;
 Best Local Similarity 100.0%; Pred. No. 6.60e+01;
 Matches 6; Conservative 0; Mismatches 0; Indels 0; Gaps 0;

Db 1 grgdsp 6
 |||||
 QY 1 GRGDSP 6

RESULT 6

ID R92740 standard; peptide; 6 AA.
 AC R92740;
 DT 03-SEP-1996 (first entry)
 DE RGD-containing sequence, for controlling cell distribution.
 KW Control; distribution; bioartificial organ; BAO; cellular attachment;
 KW neurotransmitter; hormone; cytokine; growth factor; enzyme.
 OS Synthetic.
 FH Key Location/Qualifiers
 FT peptide 2..4 /note= "Claimed core peptide"
 PN W09602646-A2.
 PD 01-FEB-1996.
 PF 20-JUL-1995; U09281.
 PR 20-JUL-1994; US-279773.
 PR 09-MAY-1995; US-432698.
 PR (CYTO-) CYTOTHERAPEUTICS INC.
 PA Aebischer P, Cain BM, Doherty EJ, Gentile FT, Hammang JP;
 PI Holland LM, Schinstine M, Shoichet MS, Winn SR;
 PI WPI; 96-105908/11.
 DR Controlling distribution of cells in bio-artificial organs - e.g. by
 PT treatment of cells, or growth surfaces, to inhibit proliferation, of
 PT promote differentiation or modulate adhesion, for in vivo prodn. of
 PT hormones, neuro-transmitter(s) etc
 PS Claim 22; Page 70; 84pp; English.
 CC The sequences given in R92739-41 are peptides which were used in the
 CC method of the invention to control the distribution of cells within
 CC a bioartificial organ (BAO). These peptides have been particularly
 CC useful in promoting cellular attachment. These peptides are pref.
 CC bound to the membrane of the BAO which is a biocompatible,
 CC permselective jacket. These peptides act to control the distribution
 CC of the core of living cells included in the BAO after in vivo
 CC implantation. BAO are used therapeutically to produce e.g.
 CC neurotransmitters, hormones, cytokines, growth factors, enzymes, etc.
 SQ Sequence 6 AA;

Query Match 100.0%; Score 41; DB 17; Length 6;
 Best Local Similarity 100.0%; Pred. No. 6.60e+01;
 Matches 6; Conservative 0; Mismatches 0; Indels 0; Gaps 0;

Db 1 grgdsp 6
 |||||
 QY 1 GRGDSP 6

RESULT 7

ID R29158 standard; peptide; 6 AA.

AC R29158;
 DT 15-APR-1993 (first entry)
 DE PEG-contg. peptide deriv #1 comprising RGD-motif.
 KW Cell adhesion; Polyethylene glycol; fibronectin.
 OS Synthetic.
 FH Key Location/Qualifiers
 FT modified_site 1
 FT modified_site 6
 FT /note= "acylated by ROCCH2(OCH2CH2)NOCH2CO-
 FT where R = GRGDSP and n = 1-150"
 FT /note= "opt. amidated and if so, R is also
 FT amidated"
 FT
 PN J04305597-A.
 PD 28-OCT-1992.
 PF 02-APR-1991; 068669.
 PR 02-APR-1991; JP-068669.
 PA (FUJF) FUJII PHOTO FILM CO LTD.
 DR WPI; 92-410149/30.
 PT New peptide-contg. polyethylene glycol derivs. - used to inhibit
 PT cancer metastasis or platelet aggregation and as lymphocyte
 PT activators
 PS Example 1; Page 3; 6pp; Japanese.
 CC The polyethylene glycol-contg. peptide derivs. contain the
 CC Arg-Gly-Asp (RGD) motif found in fibronectin. The derivs can be used
 CC as platelet aggregation inhibitors, lymphocyte activators and cancer
 CC metastasis inhibitors. See also R29159 and R33149.
 SQ Sequence 6 AA;
 Query Match 100.0%; Score 41; DB 6; Length 6;
 Best Local Similarity 100.0%; Pred. No. 6.60e+01;
 Matches 6; Conservative 0; Mismatches 0; Indels 0; Gaps 0;
 Db 1 grgdsp 6
 Qy 1 GRGDSP 6
 RESULT 8
 ID R44046 standard; peptide; 6 AA.
 AC R44046;
 DT 02-JUN-1994 (first entry)
 DE RGD peptide derivative #4.
 KW Drug; organ transplantation; rejection; immune disorder;
 KW systemic lupus.
 OS Synthetic.
 FH Key Location/Qualifiers
 FT modified_site 1
 FT modified_site 4
 FT /note= "C13H27CO-Gly"
 FT /note= "Pro-Or"
 FT
 PN J05255105-A.
 PD 05-OCT-1993.
 PF 16-MAR-1992; 058460.
 PR 16-MAR-1992; JP-058460.
 PA (FUJF) FUJII PHOTO FILM CO LTD.
 DR WPI; 93-348360/44.
 PT Immuno-control drug for organ transplant rejection etc. - contains
 PT peptide having arginine, glycine, aspartic acid sequence
 PS Disclosure; Page 3; 11pp; Japanese.
 CC The sequences given in R44043-47 and R53144 represent examples of the
 CC claimed RGD containing peptide of the invention. These peptides all
 CC correspond to the generic formulae:
 CC HO2-(CH2)m-C(O)-(X)-Arg-Gly-Asp-[Y]n-2
 CC R3-([X]-Arg-Gly-Asp-[Y]n-2
 CC [X], [Y] = amino acid or peptide residues;
 CC m = 1-5;
 CC n = 1-5;
 CC R1, R2 = H or 8-24C acyk or alkyl;
 CC R3 = 6-24C acyl;
 CC Z = hydroxyl or amino.
 CC These peptides form the active part of drugs which are used for the
 CC control of organ transplantation rejection or immune disorders such
 CC as systemic lupus.

SQ Sequence 6 AA;
 Query Match 100.0%; Score 41; DB 8; Length 6;
 Best Local Similarity 100.0%; Pred. No. 6.60e+01;
 Matches 6; Conservative 0; Mismatches 0; Indels 0; Gaps 0;
 Db 1 grgdsp 6
 Qy 1 GRGDSP 6
 RESULT 9
 ID R35465 standard; peptide; 6 AA.
 AC R35465;
 DT 26-AUG-1993 (first entry)
 DE Propene-amide deriv. polymer metastasis inhibitor.
 KW Low toxicity; higher cell adhesion ability; metastasis inhibition.
 OS Synthetic.
 FH Key Location/Qualifiers
 FT modified_site 1
 FT /note= "CH2-CCH3CO-Gly"
 FT
 PN J05097699-A.
 PD 20-APR-1993.
 PF 04-OCT-1991; 258095.
 PR 04-OCT-1991; JP-258095.
 PA (FUJF) FUJII PHOTO FILM CO LTD.
 DR WPI; 93-164370/20.
 PT Low toxicity metastasis inhibitor - composed of propene-amide
 PT deriv. polymer or its pharmacologically acceptable salts
 PS Claim 1; Page 2; 12pp; Japanese.
 CC The sequence is that of a polymer of propene amide deriv. which has
 CC a higher cell adhesion ability, compared with that of the core
 CC sequence of cell adhesive protein. It has various kinds of
 CC biological activities e.g. metastasis inhibition and has low
 CC toxicity.
 SQ Sequence 6 AA;
 Query Match 100.0%; Score 41; DB 7; Length 6;
 Best Local Similarity 100.0%; Pred. No. 6.60e+01;
 Matches 6; Conservative 0; Mismatches 0; Indels 0; Gaps 0;
 Db 1 grgdsp 6
 Qy 1 GRGDSP 6
 RESULT 10
 ID W71248 standard; Peptide; 6 AA.
 AC W71248;
 DT 18-NOV-1998 (first entry)
 DE Peptide sequence of the invention.
 KW Hepatitis drug; integrin inhibitor; integrin binding; VLA-4; treatment;
 KW hepatitis.
 OS Synthetic.
 PN WO9837914-A1.
 PD 03-SEP-1998.
 PF 26-FEB-1998; J00802.
 PR 26-FEB-1997; JP-042493.
 PA (TORA) TORAY IND INC.
 PR Kainoh M, Moriya K, Tanaka T;
 PI WPI; 98-480338/41.
 PT Integrin inhibitors including antibodies, proteins, nucleic acids,
 PT saccharide(s), capable of binding to integrin(s) as active
 PT ingredient in remedies - for treating hepatitis, by inhibiting cell
 PT adhesion
 PS Example 4; Page 19; 35pp; Japanese.
 CC The present sequence is used in the course of the invention. The
 CC specification describes Hepatitis drugs which contain integrin
 CC inhibitors as the active ingredient. These integrin inhibitors include
 CC antibodies, proteins, polypeptides, peptides, nucleic acids, saccharides,
 CC and their derivatives. They also include low molecular weight compounds
 CC capable of binding to integrins (e.g. alpha chain type with alpha 1,
 CC alpha 2, etc., or beta chain type with beta 1, beta 2, etc.).

CC particularly anti-VLA-4 antibody, VLA-4 inhibiting peptides and low
 CC molecular weight VLA-4 inhibiting compounds. The products can be used
 CC for treating hepatitis.
 SQ Sequence 6 AA;

Query Match 100.0%; Score 41; DB 35; Length 6;
 Best Local Similarity 100.0%; Pred. No. 6.60e+01;
 Matches 6; Conservative 0; Mismatches 0; Indels 0; Gaps 0;

Db 1 grgdsp 6
 |||||
 QY 1 GRGDSP 6

RESULT 11

ID W7958 standard; peptide; 6 AA.
 AC W7958;
 DE 08-DEC-1998 (first entry)
 DE Cyclo(1,6)-Gly-Arg-Gly-Asp-Ser-Pro.
 KW Platelet aggregation inhibitor; antithrombotic; antimetastatic; cyclic.
 OS Synthetic.

FH Key Location/Qualifiers
 FT Modified_site 1..6
 FT /note= "the alpha-amino group of Gly(1) is condensed
 with the carboxy of Pro(6) to give a cyclic molecule"
 FT

US5643872-A..
 01-JUL-1997. 296621.
 PD 26-AUG-1994; US-630124.
 PR 19-DEC-1990; US-425906.
 PR 23-OCT-1989; US-590635.
 PR 28-SEP-1990; US-590635.
 PR 26-AUG-1994; US-296621.
 PA (SMK) SMITHKLINE BEECHAM CORP.
 PI Ali FE, Samanen JM;
 DR WPI; 97-350267/32.
 PT New peptide derivatives - are useful in inhibiting platelet
 aggregation and clot formation, and for inhibiting reocclusion of
 PT blood vessels following fibrinolytic therapy.
 PS Disclosure; Column 7; 28pp; English.
 CC The patent describes new cyclic peptides which have a core of formula
 CC -B-Gly-Asp-, where B = a D- or L-amino acid chosen from Arg, HArg
 CC (i.e. homoarginine), (Me2)Arg, (Et2)Arg and Lys (or an alpha-substituted
 CC derivative of these). Cyclisation is effected through specific types of
 CC covalent linkages. The cyclic peptides are platelet aggregation and clot
 CC formation inhibitors. They may be used in treatment of acute myocardial
 CC infarction, deep vein thrombosis, pulmonary embolism, dissecting
 CC aneurysm, transient ischaemic attack, stroke, unstable angina,
 CC disseminated intravascular coagulation, septicemia, surgical or
 CC infectious shock, post-operative and post-partum trauma, cardiopulmonary
 CC bypass surgery, incompatible blood transfusion, abruptio placenta,
 CC thrombotic thrombocytopenic purpura, snake venom and immune diseases.
 CC They may also be used for inhibiting reocclusion of blood vessels
 CC following fibrinolytic therapy. They may also be used in prevention of
 CC metastatic conditions.
 CC The present sequence is a specific example of the new peptides.
 SQ Sequence 6 AA;

Query Match 100.0%; Score 41; DB 35; Length 6;
 Best Local Similarity 100.0%; Pred. No. 6.60e+01;
 Matches 6; Conservative 0; Mismatches 0; Indels 0; Gaps 0;

Db 1 grgdsp 6
 |||||
 QY 1 GRGDSP 6

RESULT 12

ID R29061 standard; peptide; 6 AA.
 AC R29061;
 DT 17-FEB-1993 (first entry)
 DE Peptide contg. RGD motif as a side chain to a water sol. polymer.
 KW Adhesive peptide; cell adhesion; inhibitor; platelet aggregation.
 OS Synthetic.

FH Key Location/Qualifiers
 FT Modified_site 1
 FT /note= "alkylated/arylated"
 FT modified_site 6
 FT /note= "alkylated/arylated"
 FT

J04221397-A.
 PN 11-AUG-1992.
 PD 20-DEC-1990; 404484.
 PR 20-DEC-1990; JP-404484.
 PA (FUJF) FUJII PHOTO FILM CO LTD.
 DR WPI; 92-313681/38.
 PT Water-soluble vinyl polymer deriv. for animal cell adhesion
 PT inhibitor or platelet aggregation inhibitor
 PS Example; Page 13; 14pp; Japanese.
 CC The peptide sequence contains the Arg-Gly-Asp motif of cell
 CC adhering proteins. It comprises the essential unit of a
 CC water-sol. vinyl polymer with a pref. mol. wt. of 3000-100,000 D.
 CC The polymer shows various biological activities, e.g. immunological
 CC coordination, wound healing action and platelet aggregation inhibiting
 CC action etc. See also R29055-60.
 SQ Sequence 6 AA;

Query Match 100.0%; Score 41; DB 5; Length 6;
 Best Local Similarity 100.0%; Pred. No. 6.60e+01;
 Matches 6; Conservative 0; Mismatches 0; Indels 0; Gaps 0;

Db 1 grgdsp 6
 |||||
 QY 1 GRGDSP 6

RESULT 13

ID R06455 standard; peptide; 6 AA.
 AC R06455;
 DT 04-JAN-1991 (first entry)
 DE Fibronectin derived RGD-contg. peptide.
 KW Tenascin; receptor; tumour.
 OS Synthetic.
 PN WO9008781-A.
 PD 09-AUG-1990.
 PF 23-JAN-1990; U00408.
 PR 24-JAN-1989; US-302755.
 PA (JOLL-) LA JOLLA CANCER RES.
 PI Ruoslahti EI, Bourdon WA;
 DR WPI; 90-260895/34.
 PT Tenascin-induced cell attachment - interacts with tenascin in
 PT arginine-glycine-asparagine dependent manner.
 PS Example II; Page 9; 22pp; English.
 CC The peptide was used in cell attachment assays to show inhibition
 CC of attachment to tenascin by Arg-Gly Asp contg. peptides. It
 CC completely inhibited attachment at a concn. of 300ug/ml, 30- and
 CC 50-fold lower than needed for comparable inhibition of cell
 CC attachment to vitronectin and fibronectin resp.
 SQ Sequence 6 AA;

Query Match 100.0%; Score 41; DB 2; Length 6;
 Best Local Similarity 100.0%; Pred. No. 6.60e+01;
 Matches 6; Conservative 0; Mismatches 0; Indels 0; Gaps 0;

Db 1 grgdsp 6
 |||||
 QY 1 GRGDSP 6

RESULT 14

ID R71456 standard; peptide; 6 AA.
 AC R71456;
 DT 20-OCT-1995 (first entry)
 DE Competitor fibronectin peptide - inhibits cytoskeleton stiffening.
 KW fibronectin; cytoskeleton; transmembrane force transfer; diagnostic;
 KW characterise cell; mechanical stimulation; ferromagnetic bead.
 OS Synthetic.
 PN WO9506248-A.

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PD 02-MAR-1995.
PF 25-AUG-1994; U09585.
PR 25-AUG-1993; US-112757.
PA (CHIL-) CHILDRENS MEDICAL CENT.
PA (HARD-) HARVARD COLLEGE.
PI Butler JP, Fredberg JJ, Ingber DE, Wang N;
DR WPI: 95-106940/14.
PT System for applying mechanical loads to specific cell surface
PT molecules - using ferromagnetic beads coated with attachment
PT molecules, and alignment and twisting magnetic fields, e.g. for
PT screening therapeutic agents, toxins etc.
PS Example 1: Page 19; 42pp; English.
CC The system of the invention is used to determine the effect of
CC mechanical stimulation of mols. present on a cell surface.
CC Ferromagnetic microbeads are coated with attachment mols. eg. matrix
CC mols., etc. that physically interconnect with distinct cytoskeletal
CC proteins. A strong external magnetic field is applied to the beads, to
CC impose a defined mechanical stress. Transmembrane force transfer is
CC measured and the cells observed for changes in stiffening and twisting.
CC To demonstrate the specificity of transmembrane force transfer in
CC living endothelial cells, this soluble synthetic peptide was
CC included in the culture medium as a competitor. This fibronectin
CC peptide inhibited cytoskeletal stiffening whereas a control
CC hexapeptide with a single amino acid substitution (R71457) had no
CC inhibitory effects.
CC Sequence 6 AA;
SQ
Query Match 100.0%; Score 41; DB 13; Length 6;
Best Local Similarity 100.0%; Pred. No. 6.60e+01;
Matches 6; Conservative 0; Mismatches 0; Indels 0; Gaps 0;

Db 1 grgdsp 6
Qy 1 GRGDSP 6

RESULT 15
ID R26814 standard; peptide; 6 AA.
AC R26814;
DT 18-FEB-1993 (first entry)
DE Polyethylene glycol derivative #5.
KW triazine ring; methoxy-polyethyleneoxy group; fibronectin; vitronectin;
KW platelet adhesion; metastasis; neuropathy.
OS Synthetic.
PN J04217693-A.
PD 07-AUG-1992.
PF 30-NOV-1990; 333717.
PR 23-OCT-1990; JP-285172.
PA (FUJF) FUJII PHOTO FILM CO LTD.
DR WPI: 92-312284/38.
PT Polyethylene glycol derivs. contg. peptide(s) - inhibit cellular
PT adhesion for fibronectin or vitronectin and are used to inhibit
PT agglutination or adhesion of platelets
PS Disclosure: Page 4; 9pp; Japanese.
CC The sequences given in R26810-14 are examples of a peptide chain
CC which is attached once or twice to a triazine ring which is also
CC substituted twice or once, respectively, with a methoxy-polyethyleneoxy
CC group. These peptides can be used to inhibit cellular adhesion to
CC fibronectin or vitronectin and they are useful as inhibitors for
CC agglutination or adhesion of platelets. They can also be useful as
CC inhibitors for metastasis of cancers, inhibitors of agglutination of
CC platelets caused by tumour cells in the blood capillaries, and drugs
CC acting on neuropathy.
SQ
Query Match 100.0%; Score 41; DB 5; Length 6;
Best Local Similarity 100.0%; Pred. No. 6.60e+01;
Matches 6; Conservative 0; Mismatches 0; Indels 0; Gaps 0;

Db 1 grgdsp 6
Qy 1 GRGDSP 6

RESULT 16
ID R29063 standard; peptide; 6 AA.
AC R29063;
DT 17-FEB-1993 (first entry)
DE Peptide contg. RGD motif as a side chain to a water sol. polymer.
KW Adhesive peptide; cell adhesion; inhibitor; platelet aggregation.
OS Synthetic.
PN Key
DR WPI: 92-313680/38.
PT Water-soluble vinyl polymer deriv.- for animal cell adhesion
PT inhibitor or platelet aggregation inhibitor
PS Example; Page 12; 14pp; Japanese.
CC The peptide sequence contains the Arg-Gly-Asp motif of cell
CC adhering proteins. It comprises the essential unit of a
CC water-sol. vinyl polymer with a pref. mol. wt. of 3000-100,000 D.
CC The polymer shows various biological activities, e.g. immunological
CC coordination, wound healing action and platelet aggregation inhibiting
CC action etc. See also R29062-8.
SQ
Query Match 100.0%; Score 41; DB 5; Length 6;
Best Local Similarity 100.0%; Pred. No. 6.60e+01;
Matches 6; Conservative 0; Mismatches 0; Indels 0; Gaps 0;

Db 1 grgdsp 6
Qy 1 GRGDSP 6

RESULT 17
ID R57890 standard; peptide; 6 AA.
AC R57890; 1995 (first entry)
DT 29-MAR-1995
DE Binding site derived from Fab antibody HCDR3.
KW Binding site; CDR; complementarity determining region; immunoglobulin;
KW heavy; light; primer extension; PCR; amplify; fibronectin; vitronectin;
KW RGD-dependant; integrin ligand; von Willebrand factor; EBV; gp350/220;
KW envelope glycoprotein; HIV; gp120; reovirus; hemagglutinin; insulin; TSH;
KW cellular receptor; CR2; CD4; hormone; thyroid stimulating hormone;
KW transferrin; apolipoprotein; apo E; apo AI; MHC; class I; class II;
KW non-RGD-dependant; vitronectin receptor; alpha-v; beta-3; modulation;
KW anti-gp11b/IIIa; monoclonal antibody; MAB; platelet adhesion; cancer;
KW coagulation; inflammation; anti-vitronectin; tumour cell adhesion;
KW migration.
OS Synthetic.
PN WO9418221-A.
DR WPI: 94-279675/34.
PT Production of binding sites within CDR regions of immunoglobulins
PT - displayed on the surface of filamentous phage particles, for
PT inhibiting platelet aggregation and vitronectin binding
PS Example 5; Page 142; 207pp; English.
CC This sequence represents a conserved binding site which may be used
CC in the method of the invention for producing a polypeptide having a
CC binding site capable of binding a preselected agent. Nucleotide
CC sequences encoding these binding site peptides were introduced into
CC a CDR region of a nucleic acid encoding an immunoglobulin heavy (H)
CC or light (L) chain, by amplifying the CDR region by primer extension.

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CC Preferred binding sites are derived from the RGD-dependant integrin
 CC ligands, eg. fibronectin, vitronectin, von Willebrand factor, from
 CC the envelope glycoprotein from viruses such as HIV gp120, EBV gp350/
 CC 220, reovirus hemagglutinin, from cellular receptors such as CR2 or
 CC CD4, from protein hormones such as thyroid stimulating hormone (TSH),
 CC insulin, transferrin, from apolipoproteins such as apo E and apo AI,
 CC from immunoglobulin CDRs and from MHC class I or II proteins. Non-RGD-
 CC dependant integrin binding sites were selected for the affinity to bind
 CC vitronectin receptor alpha-v, beta-3. An anti-gp120/irra monoclonal
 CC antibody (Mab) produced in this way can be used to modulate platelet
 CC adhesion in the treatment of coagulation and some inflammatory responses.
 CC An anti-vitronectin MAb can be used in the treatment of cancer by
 CC blocking tumour cell adhesion and migration. This sequence represents
 CC an RGD-dependant binding site which has been shown to bind the human
 CC vitronectin receptor (VnR) alpha-v, beta-3 when present in a phagemid
 CC display protein.
 CC Sequence 6 AA;

Query Match 100.0%; Score 41; DB 11; Length 6;
 Best Local Similarity 100.0%; Pred. No. 6.60e+01; Indels 0; Gaps 0;
 Matches 6; Conservative 0; Mismatches 0;

Db 1 grgdsp 6
 |||||
 QY 1 GRGDSP 6

RESULT 18
 ID W35452 standard; peptide; 6 AA.
 AC W35452;
 DT 22-APR-1998 (first entry)
 DE Non-dendritic peptide carrier binding activity fragment.
 KW T-cell stimulatory peptide; immunogen; non-dendritic; carrier; tumour;
 OS scaffold; inhibition; metastasis; wound healing; solid phase.
 UN Unidentified.
 PI W09738011-A1.
 PD 16-OCT-1997.
 PF 03-APR-1997; D00146.
 PR 03-APR-1996; DK-000398.
 PA (PEPR-) PEPESEARCH AS.
 PI Heegaard PMH, Jakobsen PH;
 DR WPI: 97-512645/47.
 PT Non-dendritic peptide carrier linked to a solid phase - useful as a
 PT diagnostic agent and as a scaffold for production of chemical
 PT derivatives
 PS Claim 51; Page 203; 262pp; English.
 CC A non-dendritic peptide carrier (A) has been developed which is coupled
 CC through a linker to a solid phase, forming a complex of (A)-solid phase.
 CC Where (A) comprises 10-50 amino acids capable of forming a secondary
 CC structure in a benign buffer after liberation from the solid phase, and
 CC further the (A)-solid phase complex comprises an immunogenic substance
 CC and/or an immune mediator coupled on (A). The present sequence
 CC represents a specifically claimed non-dendritic peptide carrier binding
 CC activity fragment from the invention. An (A)-solid phase complex can
 CC be used as a scaffold for the production of chemical derivatives,
 CC characterised by covalently attaching molecules at attachment points.
 CC Alternatively (A) is used as a scaffold-peptide for the incorporation
 CC into an Immunostimulating Complex (Iscom) resulting in an (A)-Iscom complex
 CC which is used for the chemical coupling of antigenic substances in an
 CC aqueous solution by conjugation. (A) derivatised with one or more
 CC peptides having fibronectin-, laminin- or vitronectin-like binding
 CC activities can be used for the promotion of cell-attachment to plastic
 CC surfaces, in particular to inhibit tumour growth and metastasis, and for
 CC promotion of wound healing. Also a derivatised (A) can be used for the
 CC selection of specifically-binding aptamers or as a diagnostic agent.
 CC Such diagnostic-(A) molecules could be used to detect molecules derived
 CC from or indicative of pregnancy or of a disease, such as an infectious,
 CC autoimmune or cancerous disease.
 CC Sequence 6 AA;

Query Match 100.0%; Score 41; DB 27; Length 6;
 Best Local Similarity 100.0%; Pred. No. 6.60e+01; Indels 0; Gaps 0;
 Matches 6; Conservative 0; Mismatches 0;

Db 1 grgdsp 6
 |||||
 QY 1 GRGDSP 6

RESULT 19
 ID R32421 standard; peptide; 6 AA.
 AC R32421;
 DT 07-JUN-1993 (first entry)
 DE GRGDSP synthetic peptide.
 KW Laminin receptor binding.
 OS Synthetic.
 PN US5180809-A.
 PD 19-JAN-1993.
 PF 25-MAY-1989; 357354.
 PR 20-MAY-1988; US-196986.
 PR 25-MAY-1989; US-357354.
 PA (LJOL-) LA JOLLA CANCER RES FOUND.
 PI Engvall E, Gehlsen KR, Ruoslahti EI;
 DR WPI: 93-052874/06.
 PT New mammalian laminin adhesion receptor - used in analyses,
 PT prepn. of antibodies and screening, partic. for study and treatment
 PT of tumour cells
 PS Example; Page 11; 15pp; English.
 CC This is the synthetic peptide GRGDSP which was used in the isolation
 CC of a laminin adhesion receptor. The peptide does not inhibit the
 CC binding of laminin receptor liposomes to laminin.
 CC Sequence 6 AA;

Query Match 100.0%; Score 41; DB 6; Length 6;
 Best Local Similarity 100.0%; Pred. No. 6.60e+01;
 Matches 6; Conservative 0; Mismatches 0; Indels 0; Gaps 0;

Db 1 grgdsp 6
 |||||
 QY 1 GRGDSP 6

RESULT 20
 ID R04612 standard; protein; 6 AA.
 AC R04612;
 DT 05-SEP-1990 (first entry)
 DE Antiviral agent.
 KW Antiviral; M2; poliovirus; polio; hepatitis.
 OS Synthetic.
 PN J02078631-A.
 PD 19-MAR-1990.
 PF 14-SEP-1988; 228843.
 PR 14-SEP-1988; JP-228843.
 PA (NIHA) Nippon Mining KK.
 DR WPI: 90-129060/17.
 PT Antiviral agent contg. tri-peptide (unit) -
 PT of basic aminoacid, then alanine, glycine or sarcosine, and
 PT acidic aminoacid, effective against virus with protein-terminated DNA
 PT or RNA.
 PS Disclosure; 4pp; Japanese.
 CC Peptide is effective against inhibiting propagation of DNA or RNA
 CC bonded, protein containing viruses eg. Poliovirus, Hepatitis virus.
 CC Sequence 6 AA;

Query Match 100.0%; Score 41; DB 1; Length 6;
 Best Local Similarity 100.0%; Pred. No. 6.60e+01;
 Matches 6; Conservative 0; Mismatches 0; Indels 0; Gaps 0;

Db 1 grgdsp 6
 |||||
 QY 1 GRGDSP 6

RESULT 21
 ID W01130 standard; peptide; 6 AA.
 AC W01130;

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Best Local Similarity 100.0%; Pred. No. 6.60e+01;
Matches      6; Conservative      0; Mismatches      0; Indels      0; Gaps      0;

Db      1 grdsp 6
        |||||
Qy      1 GRDSP 6

RESULT 23
ID      W70545 standard; peptide; 6 AA.
AC      W70545;
DE      26-JAN-1999 (first entry)
DT      CS-1 peptide fragment 3 (a fibronectin fragment).
KW      Integrin; alpha-4 chain; immunoglobulin; chimeric; heterodimer complex;
KW      inhibitor; binding; ligand; blood platelet; hemostatic; diagnostic agent
KW      CS-1; fibronectin.
KW      Synthetic.
OS      OS
PN      WO9832771-A1.
PD      30-JUL-1998.
PF      29-JAN-1998; J00370.
PR      28-AUG-1997; JP-234544.
PS      29-JAN-1997; JP-015118.
PT      (TORA ) TORAY IND INC.
PI      kainoh M, Tanaka T;
PI      WPI; 98-427881/36.
PT      Integrin-immunoglobulin chimeric protein heterodimer complexes as
PT      platelet substitutes - contain the alpha and beta integrin chains
PT      associated in stable state and bind to extracellular matrix in the
PT      presence of plasma components
PS      Example 10; Page 30; 87pp; Japanese.
CC      Sequences W70543 to W70545 represent CS-1 peptide fragments used during
CC      the course of the invention. The invention provides integrin-
CC      immunoglobulin chimeric protein heterodimer complexes that comprise an
CC      integrin alpha or beta chain associated with an immunoglobulin light or
CC      heavy chain. These chimeric proteins form heterodimer complexes, in
CC      particular with a chimeric protein containing an integrin alpha chain and
CC      an immunoglobulin chain with a chimeric protein containing an integrin
CC      beta chain and an immunoglobulin chain; the immunoglobulin chain in each
CC      case may be a heavy chain, or one of the two may be a light chain. The
CC      integrin alpha chain is preferably alpha 4 or alpha 2 and the integrin
CC      beta chain is preferably beta 1. Animal cells transformed with vectors
CC      containing the DNA coding for the above chimeric proteins can be used in
CC      the preparation of the chimeric proteins and their heterodimer complexes
CC      The heterodimer complexes, which are useful for testing potential
CC      promoters and inhibitors of the binding of integrins to their ligands.
CC      function as blood platelet substitutes and hemostatics and as diagnostic
CC      agents.
SQ      Sequence      6 AA;

Query Match      100.0%; Score 41; DB 37; Length 6;
Best Local Similarity 100.0%; Pred. No. 6.60e+01;
Matches      6; Conservative      0; Mismatches      0; Indels      0; Gaps      0;

Db      1 grdsp 6
        |||||
Qy      1 GRDSP 6

RESULT 24
ID      W65003 standard; peptide; 6 AA.
AC      W65003;
DE      10-SEP-1998 (first entry)
DT      Synthetic osteoclast attachment blocking peptide.
KW      Angiogenesis; inhibitor; alpha-v beta-3 integrin receptor; treatment;
KW      disease; diagnosis; immunoassay; detection; cancer; inflammation;
KW      rheumatoid arthritis; osteoporosis; restenosis; retinopathy; glaucoma;
KW      retinal neovascularisation; diabetic retinopathy; macular degeneration.
KW      Synthetic.
OS      OS
PN      US5780426-A.
PD      14-JUL-1998.
PF      07-JUN-1995; 482107.
PR      07-JUN-1995; US-482107.
PS      (IXSY-) IXSYS INC.
PT      PA

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PI Huse WD, Lee BA, Palladino MA, Varner JA;
 DR WPI; 98-413114/35.
 PT New non-RGD peptides with specific affinity for the alphav, beta3
 PT integrin receptor - contain specific pentapeptide sequence, used for
 PT treatment or prevention of particularly angiogenic disorders such as
 PT cancer, inflammation, osteoporosis etc.
 PS Disclosure: Column 2; 20pp; English.
 CC W65001-W65010 are synthetic peptides used in an assay to determine which
 CC peptides bind to and inhibit the alpha-v beta-3 integrin receptor. Such
 CC inhibitors could be used to treat or prevent diseases mediated by the
 CC alpha-v beta-3 integrin receptor, particularly angiogenic diseases, e.g.
 CC cancer and their metastases, inflammation, rheumatoid arthritis,
 CC osteoporosis, restenosis, retinal neovascularisation (glaucoma), diabetic
 CC retinopathy and macular degeneration. The peptides are also useful for
 CC diagnosis of such diseases by detecting or quantifying the receptor in
 CC samples and can be used to raise antibodies useful as immunoassay
 CC reagents.
 SQ Sequence 6 AA;

Query Match 100.0%; Score 41; DB 33; Length 6;
 Best Local Similarity 100.0%; Pred. NO. 6.60e+01;
 Matches 6; Conservative 0; Mismatches 0; Indels 0; Gaps 0;

Db 1 grgdsp 6
 QY 1 GRGDSP 6

RESULT 25
 ID W45490 standard; peptide; 6 AA.
 AC W45490;
 DT 20-MAY-1998 (first entry)
 DE Targeting ligand directed to the glycoprotein GPIIb/IIIa receptor.
 KW Contrast agent; targeted composition; diagnosis; diseased tissue;
 KW glycoprotein GPIIb/IIIa receptor.
 OS Synthetic.
 OS Homo sapiens.
 PN W09640285-A1.
 PD 19-DEC-1996.
 PF 06-JUN-1996; U09938.
 PR 01-MAY-1996; US-640464.
 PR 07-JUN-1995; US-497684.
 PA (IMAR-) IMARX PHARM CORP.
 PI Shen D, Unger EC, Wu G;
 DR WPI; 97-077233/07.
 PT Contrast agent or targeted compsn. for imaging or treating diseased
 PT tissue - comprising lipid, protein or polymer, a gas, and a
 PT targeting ligand e.g. a protein, peptide, saccharide or steroid
 PS Disclosure: Page 55; 175pp; English.
 CC This sequence represents a targeting ligand directed to the GPIIb/IIIa
 CC receptor. The invention relates to a contrast agent for diagnostic
 CC imaging or a target composition which comprises: (i) a lipid, protein or
 CC polymer and (ii) a gas, in combination with (iii) a targeting ligand
 CC (T1). T1 targets cells or receptors selected from myocardial, GI
 CC endothelial, epithelial and tumour cells and the glycoprotein GPIIb/IIIa
 CC receptor. Also claimed are: a composition comprising vesicles containing
 CC (i) - (iii) and an aqueous carrier; a targeted vesicle composition
 CC comprising a fluorinated gas and a targeting ligand (T1') which targets
 CC tissues or receptors; a formulation for therapeutic or diagnostic use
 CC comprising (i)-(iii) and a bioactive agent; and a method for providing an
 CC image of an internal region of a patient, or for diagnosing the presence
 CC of diseased tissue, comprising: (a) administration of a composition as
 CC above; and (b) scanning the patient using ultrasound to obtain a visible
 CC image of the region or diseased tissue. The methods and compounds are
 CC useful for imaging or diagnosing the presence of diseased tissue,
 CC especially myocardial, endothelial or epithelial tissue but also
 CC gastrointestinal and cardiovascular regions. In particular the ligand
 CC targets regions of arteriosclerosis. Stabilised vesicles are
 CC particularly useful for perfusion imaging. The vesicles may also be used
 CC to deliver active agents to an intended target such as tissue or a
 CC receptor, and ultrasound can then be used to promote rupture of the
 CC vesicles and release a bioactive or diagnostic agent.
 SQ Sequence 6 AA;

Query Match 100.0%; Score 41; DB 28; Length 6;
 Best Local Similarity 100.0%; Pred. NO. 6.60e+01;
 Matches 6; Conservative 0; Mismatches 0; Indels 0; Gaps 0;

Db 1 grgdsp 6
 QY 1 GRGDSP 6

RESULT 26
 ID R26807 standard; peptide; 6 AA.
 AC R26807;
 DT 12-FEB-1993 (first entry)
 DE Proten-amido peptide copolymer.
 KW Tumour metastasis inhibitor; platelet aggregation; animal cell;
 KW adhesion; wound healing; cell culture media.
 OS Synthetic.
 FH Key Location/Qualifiers
 FT modified_site 1
 FT /note= "CH2-CCH3-CO-Gly"
 PN J04213311-A.
 PD 04-AUG-1992.
 PF 29-MAR-1991; 066159.
 PR 27-NOV-1990; JP-324610.
 PA (FUJF) FUJI PHOTO FILM CO LTD.
 DR WPI; 92-305482/37.
 PT New copolymers of propen-amido peptide(s) - are tumour
 PT metastasis, platelet aggregation and animal cell adhesion
 PT inhibitors also useful as wound healing agents and cell culture
 PT media
 PS Example; Page 6; 14pp; Japanese.
 CC The sequence is that of a propen-amido peptide copolymer, it and its
 CC salts are water soluble and is useful as a tumour metastasis
 CC inhibitor, a platelet aggregation inhibitor, an animal cell adhesion
 CC inhibitor, a wound healing agent and cell culture media.
 CC See also R26805-R26808.
 SQ Sequence 6 AA;

Query Match 100.0%; Score 41; DB 5; Length 6;
 Best Local Similarity 100.0%; Pred. NO. 6.60e+01;
 Matches 6; Conservative 0; Mismatches 0; Indels 0; Gaps 0;

Db 1 grgdsp 6
 QY 1 GRGDSP 6

RESULT 27
 ID R37029 standard; peptide; 6 AA.
 AC R37029;
 DT 18-AUG-1993 (first entry)
 DE Peptide for isolating cell surface receptors.
 KW Affinity chromatography; matrix-linked; vitronectin receptor.
 OS Synthetic.
 PN US5206347-A.
 PD 27-APR-1993.
 PF 06-AUG-1985; 763046.
 PR 08-AUG-1985; US-763046.
 PR 09-SEP-1988; US-242712.
 PR 13-JUL-1990; US-553355.
 PA (LJOL-) LA JOLLA CANCER RES FOUND.
 PI Pierschbacher MD, Ruoslahti EI;
 DR WPI; 93-151781/18.
 PT Cell surface receptors isolation from cell extracts - by affinity
 PT chromatography using matrix linked peptide contg. arginine
 PT glycine aspartic acid sequence, for serum spreading factor
 PS Disclosure; Page 8; 8pp; English.
 CC The peptide contains the sequence Arg-Gly-Asp, which is also present
 CC in the binding site of fibronectin. The peptide is coupled to a
 CC matrix and used in an affinity chromatography column. The column
 CC may be used to bind the vitronectin, fibronectin, fibrinogen and von
 CC Willebrand's factor receptors from osteosarcoma or other mesenchymal

CC cells and platelets. The receptors may be incorporated into
 CC liposomes for drug delivery or used as prostheses where attachment
 CC of extracellular matrix is required.
 SQ Sequence 6 AA;

Query Match 100.0%; Score 41; DB 7; Length 6;
 Best Local Similarity 100.0%; Pred. No. 6.60e+01;
 Matches 6; Conservative 0; Mismatches 0; Indels 0; Gaps 0;

Db 1 grgdsp 6
 |||||
 QY 1 GRGDSP 6

RESULT 28
 ID R36710 standard; peptide; 6 AA.
 AC R36710;

DE 26-AUG-1993 (first entry)
 DE Adhesion formation prevention RGD-contg. peptide.
 KW Tissue repair; peritoneum; surgery; post-surgically; inhibition;
 KW platelet aggregation; cardiovascular; orthopedic; thoracic;
 KW ophthalmic; CNS; use.
 OS Synthetic.

PH Key Location/Qualifiers
 FT modified_site 5 /label= D-Ser

FT W09308818-A.

FN 13-MAY-1993.

PD 06-NOV-1992; U09494.

PF 07-NOV-1991; US-789231.

PR (UYSC-) UNIV SOUTHERN CALIFORNIA.

PA Dizerega GS, Rodgers KE;

PI WPI; 93-167381/20.

DR Prevention of adhesion formation, partic. post-surgically - comprises
 PT administering a RGD-contg. peptide for a time sufficient to permit
 PT tissue repair

PS Example; Page 18; 22pp; English.

CC The sequence is that of an RGD-contg. peptide which is used in a
 CC method for prevention of adhesion formation for a time sufficient
 CC to permit tissue repair. The method is used for minimising or
 CC preventing adhesion formation, partic. in the peritoneum following
 CC surgery, but also for e.g. cardiovascular, orthopedic, thoracic,
 CC ophthalmic, CNS and other uses. In addn., the peptide inhibits
 CC platelet aggregation and does not induce inflammation or trauma
 CC at the site of administration.
 SQ Sequence 6 AA;

Query Match 100.0%; Score 41; DB 7; Length 6;
 Best Local Similarity 100.0%; Pred. No. 6.60e+01;
 Matches 6; Conservative 0; Mismatches 0; Indels 0; Gaps 0;

Db 1 grgdsp 6
 |||||
 QY 1 GRGDSP 6

RESULT 29
 ID R36708 standard; peptide; 6 AA.
 AC R36708;

DE 26-AUG-1993 (first entry)
 DE Adhesion formation prevention RGD-contg. peptide.
 KW Tissue repair; peritoneum; surgery; post-surgically; inhibition;
 KW platelet aggregation; cardiovascular; orthopedic; thoracic;
 KW ophthalmic; CNS; use.
 OS Synthetic.

PN W09308818-A.

PD 13-MAY-1993.

PF 06-NOV-1992; U09494.

PR 07-NOV-1991; US-789231.

PA (UYSC-) UNIV SOUTHERN CALIFORNIA.

PI Dizerega GS, Rodgers KE;

DR WPI; 93-167381/20.

PT Prevention of adhesion formation, partic. post-surgically - comprises

PT administering a RGD-contg. peptide for a time sufficient to permit
 PT tissue repair
 PS Example; Page 18; 22pp; English.
 CC The sequence is that of an RGD-contg. peptide which is used in a
 CC method for prevention of adhesion formation for a time sufficient
 CC to permit tissue repair. The method is used for minimising or
 CC preventing adhesion formation, partic. in the peritoneum following
 CC surgery, but also for e.g. cardiovascular, orthopedic, thoracic,
 CC ophthalmic, CNS and other uses. In addn., the peptide inhibits
 CC platelet aggregation and does not induce inflammation or trauma
 CC at the site of administration.
 SQ Sequence 6 AA;

Query Match 100.0%; Score 41; DB 7; Length 6;
 Best Local Similarity 100.0%; Pred. No. 6.60e+01;
 Matches 6; Conservative 0; Mismatches 0; Indels 0; Gaps 0;

Db 1 grgdsp 6
 |||||
 QY 1 GRGDSP 6

RESULT 30

ID R24241 standard; Protein; 6 AA.

AC R24241;

DE 01-DEC-1992 (first entry)

DE Activation independent ligand.

KW platelet aggregation disorder; ligand binding; occupancy; competent.

OS Synthetic.

PN W09208982-A.

PD 29-MAY-1992.

PF 15-NOV-1991; U08579.

PR 15-NOV-1990; US-614723.

PA (SCRI) SCRIPPS RES INST.

PI Ginsberg MH; 724.

DR WPI; 92-200317/24.

PT Rapid characterisation of platelet aggregation disorders - by
 PT detecting levels of activation and ligand-occupancy competent
 PT platelets, pref. by flow cytometry after reaction with labelled
 PT antibodies

PS Claim 9; Page 70; 76pp; English.

CC The peptide is an activation independent ligand which is used as
 CC part of a method for characterising a platelet aggregation defect in
 CC a patient where the defect is an activation, ligand binding, or post
 CC occupancy defect. It forms a ligand-induced binding site on normal
 CC platelets which can be used to indicate the presence of ligand
 CC occupancy competent platelets in a sample. The method provides rapid
 CC characterisation of defects (less than 30 min. using platelet-rich
 CC plasma or whole blood), gives improved definition of the defects and
 CC requires only 0.5 ml of sample, conventional aggregation methods
 CC require about 20-30 ml. See also R24239-R24242.
 SQ Sequence 6 AA;

Query Match 100.0%; Score 41; DB 4; Length 6;
 Best Local Similarity 100.0%; Pred. No. 6.60e+01;
 Matches 6; Conservative 0; Mismatches 0; Indels 0; Gaps 0;

Db 1 grgdsp 6
 |||||
 QY 1 GRGDSP 6

RESULT 31

ID W51239 standard; peptide; 6 AA.

AC W51239;

DE 12-AUG-1998 (first entry)

DE Alpha v beta 3 receptor inhibitor.

KW Integrin alpha v beta 3 receptor; osteoporosis; restenosis; cancer;

KW arthritis; diabetic; retinopathy; disulphide; inhibitor.

OS Synthetic.

PN U55767071-A.

PD 16-JUN-1998.

PF 07-JUN-1995; 482106.

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PR 07-JUN-1995; US-482106.
PA (IXSY-) IXSY INC.
PI Huse WD, Lee BA, Palladino MA, Varner JA;
DR WPI; 98-361749/31.
PT New Non-RGD cyclic peptides that bind to integrin receptor - useful
PT for treating e.g. osteoporosis, restenosis, cancer, arthritis and
PT diabetic retinopathy
PS Disclosure; Column 2; 23pp; English.
CC The invention relates to cyclic, non Arg-Gly-Asp (non-RGD) peptides that
CC bind to the alpha v beta 3 integrin receptor and have the sequence Arg
CC Cys X1 Gly Asp Ser X2 Cys X3, where the cysteines are connected by a di-
CC sulphide bond, X1 is Gly, Ser or Ala, and X2 and X3 are any amino acids.
CC The peptides are useful for treating diseases involving alpha v beta 3
CC receptors e.g. osteoporosis, restenosis, cancer, arthritis and diabetic
CC retinopathy. The present sequence represents an Arg-Gly-Asp containing
CC peptide.
SQ Sequence 6 AA;

Query Match 100.0%; Score 41; DB 31; Length 6;
Best Local Similarity 100.0%; Pred. No. 6.60e+01;
Matches 6; Conservative 0; Mismatches 0; Indels 0; Gaps 0;

Db 1 grgdsp 6
   |||||
QY 1 GRGDSP 6

RESULT 32
ID W34089 standard; peptide; 6 AA.
AC W34089;
DT 05-MAY-1998 (first entry)
DE Beta-1 integrin cell surface receptor inhibitor peptide.
KW Beta-1 integrin cell surface receptor; beta-1 integrin-binding domain;
KW cancer; tenascin; inflammation; receptor stimulator; fibrin;
KW inhibitor; leucocyte migration.
OS Synthetic.
PN W0973773-A1.
PD 30-OCT-1997.
PF 22-APR-1997; U06577.
PR 22-APR-1996; US-635572.
PA (UYCO ) UNIV COLUMBIA NEW YORK.
PI Loike J, Silverstein SC;
DR WPI; 97-535582/49.
PT Treating infection caused by in-dwelling devices - also similar
PT methods for treating cancers coated with tenascin and treating
PT inflammation with receptor stimulators
PS Claim 15; Page 63; 91pp; English.
CC A novel method has been developed for treating infection caused by
CC bacteria on the surface of an in-dwelling foreign body, over and
CC around which fibrin has been deposited. The method comprises
CC administration of an agent that inhibits signalling mediated by a
CC beta 1-integrin cell surface receptor on leucocytes. The agent enhances
CC migration of leucocytes in and through the fibrin so that they can
CC reach and kill the bacteria. The present sequence represents a
CC specifically claimed peptide which contains a beta-1 integrin-binding
CC domain. Treatment with the agent overcomes the inhibitory effects of
CC fibrin or tenascin on leucocyte migration.
SQ Sequence 6 AA;

Query Match 100.0%; Score 41; DB 28; Length 6;
Best Local Similarity 100.0%; Pred. No. 6.60e+01;
Matches 6; Conservative 0; Mismatches 0; Indels 0; Gaps 0;

Db 1 grgdsp 6
   |||||
QY 1 GRGDSP 6

RESULT 33
ID W45920 standard; peptide; 6 AA.
AC W45920;
DT 29-JUN-1998 (first entry)
DE Control peptide #7.

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KW Anti-thrombotic agent; cardiovascular disease; disulphide bond; stroke;
KW aggregation; clot; platelet; myocardial infarction; thrombosis.
OS Synthetic.
PN W09725343-A2.
PD 17-JUL-1997.
PF 10-JAN-1997; U00385.
PR 11-JAN-1996; US-585281.
PA (LJOL-) LA JOLLA CANCER RES FOUND.
PI Mullen DG, Pierschbacher MD;
DR WPI; 97-372812/34.
PT New cyclic peptide(s) - used for treatment of thrombosis and
PT thrombotic conditions, e.g. stroke and myocardial infarction
PT Example 2; Page 31; 43pp; English.
CC This sequence represents a control peptide. The invention relates to
CC cyclic peptides which can be used for the treatment of thrombosis or a
CC thrombotic condition selected from stroke, myocardial infarction,
CC vascular graft occlusion, unstable angina and abrupt reclosure following
CC angioplasty. They decrease aggregation at a clot site but do not affect
CC normal platelet function and do not inhibit platelet aggregation
CC throughout the whole blood stream. They therefore reduce bleeding
CC complications typical of other thrombotic agents.
SQ Sequence 6 AA;

Query Match 100.0%; Score 41; DB 29; Length 6;
Best Local Similarity 100.0%; Pred. No. 6.60e+01;
Matches 6; Conservative 0; Mismatches 0; Indels 0; Gaps 0;

Db 1 grgdsp 6
   |||||
QY 1 GRGDSP 6

RESULT 34
ID W03680 standard; peptide; 6 AA.
AC W03680;
DT 31-DEC-1996 (first entry)
DE Fibronectin elution peptide.
KW Fibronectin receptor; cell attachment site; therapeutic agent; tissue.
OS Synthetic.
PN US5540933-A.
PD 30-JUL-1996.
PF 31-MAY-1985; 740240.
PR 31-MAY-1985; US-740240.
PR 25-JAN-1989; US-302047.
PR 20-MAR-1992; US-857097.
PR 29-APR-1993; US-056815.
PA (LJOL-) LA JOLLA CANCER RES FOUND.
PI Pierschbacher MD, Ruoslahti EI;
DR WPI; 96-361919/36.
PT Liposome for targeting fibronectin-contg. tissue contains
PT glyco;protein - isolated from surface of human cells, also useful
PT for detecting tissue contg. fibronectin
PS Claim 1; Column 12; 15pp; English.
CC The specification deals with a novel fibronectin receptor protein of
CC mol. wt 140 kD under reducing SDS-PAGE and 120 kD under non-reducing
CC SDS-PAGE, which binds to the cell attachment site in fibronectin and
CC can be eluted from this attachment site by the peptide shown here.
CC The elution peptide contains a sequence which mimics the attachment
CC sequence of fibronectin to the receptor, i.e. Gly-Arg-Gly.
CC The novel receptor can be used to deliver therapeutic agents to
CC fibronectin-contg. tissues.
SQ Sequence 6 AA;

Query Match 100.0%; Score 41; DB 19; Length 6;
Best Local Similarity 100.0%; Pred. No. 6.60e+01;
Matches 6; Conservative 0; Mismatches 0; Indels 0; Gaps 0;

Db 1 grgdsp 6
   |||||
QY 1 GRGDSP 6

RESULT 35

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ID R94570 standard; Peptide; 6 AA.
AC R94570:
DT 21-JUN-1996 (first entry)
DE RGD peptide.
KW Cytotactin; neuron; neurite; cell attachment; cell elongation;
KW antibody.
OS Synthetic.
PN WO9608513-A1.
PD 21-MAR-1996.
PF 14-SEP-1995; U11684.
PR 16-SEP-1994; US-308359.
PA (SCRI ) SCRIPPS RES INST.
PI Crossin KL, Phillips G, Prieto AL;
DR WPI; 96-179904/18.
PT Cytotactin polypeptide(s), derivs. and antibodies - capable of
PT stimulating neuronal cell attachment, neurite out-growth and cell
PT elongation
PS Example 5; Page 81; 159pp; English.
CC RGD peptides (R94570 and R94571), inhibitors of cell attachment to
CC type I collagen, inhibited attachment of chicken fibroblasts to
CC cytotactin (see also R94547-48) by 73% and 70% respectively.
CC Inhibition was total when the peptides were used together with JG22,
CC a function-blocking monoclonal antibody against the beta-1 integrin.
CC This suggests that there are 2 integrin binding sites on cytotactin.
SQ Sequence 6 AA;

Query Match 100.0%; Score 41; DB 16; Length 6;
Best Local Similarity 100.0%; Pred. No. 6.60e+01;
Matches 5; Conservative 0; Mismatches 0; Indels 0; Gaps 0;

Db 1 grgdsp 6
   |||||
QY 1 GRGDSP 6

RESULT 36
ID W25186 standard; peptide; 6 AA.
AC W25186:
DT 05-JAN-1998 (first entry)
DE RGD-peptide capable of binding cell adhesion molecules.
KW RGD; arginine; glycine; aspartic acid; cell adhesion molecule;
KW binding; bladder irrigation; tumour removal; endoscopic operation;
KW transurethral resection; cancer; neoplasia.
OS Synthetic.
PN DE19529909-A1.
PD 20-FEB-1997.
PF 15-AUG-1995; 029909.
PR 15-AUG-1995; DE-029909.
PA (FREP ) FRESINIUS AG.
PI Boehle A;
DR WPI; 97-133793/13.
PT Endoscopic irrigation solns. - contg. peptide(s) that bind to cell
PT adhesion molecules
PS Claim 5; Page 8; 8pp; German.
CC W25173-W25186 are peptides containing an RGD sequence or equivalent.
CC The peptides are capable of binding to cell adhesion molecules and
CC are used in aqueous irrigation solutions for use during and after
CC endoscopic operations. Preferred irrigation solutions are
CC electrolyte-free and contain 1 microg/ml to 100 mg/ml of one or more
CC oligopeptides containing the amino acid sequences: RGD, LDV, IDA, DGEA,
CC GPRP, VTL, YIGSR, KOAGDV and/or REDV (given in one letter amino acid
CC code). The solutions are especially used for irrigating the bladder
CC during and after tumour removal by transurethral resection. The
CC peptides protect against recurrence of tumours.
SQ Sequence 6 AA;

Query Match 100.0%; Score 41; DB 24; Length 6;
Best Local Similarity 100.0%; Pred. No. 6.60e+01;
Matches 6; Conservative 0; Mismatches 0; Indels 0; Gaps 0;

Db 1 grgdsp 6
   |||||
QY 1 GRGDSP 6

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RESULT 37
ID W45883 standard; peptide; 6 AA.
AC W45883:
DT 30-JUN-1998 (first entry)
DE Peptide membrane binding element.
KW Membrane binding element; thrombotic disease; soluble protein;
KW complement-related disease; integral membrane protein; inflammation.
OS Homo sapiens.
PN WO9802454-A2.
PD 22-JAN-1998.
PF 08-JUL-1997; E03715.
PR 15-JUL-1996; GB-014871.
PA (ADPR-) ADPROTECH PLC.
PI Dodd I, Mossakowska DEI, Smith RAG;
DR WPI; 98-110524/10.
PT Derivatives of soluble poly:peptide(s) bonded to low affinity
PT membrane binding groups - useful for treating complement-related and
PT thrombotic diseases, providing improved localisation at cellular
PT membranes
PS Claim 12; Page 70; 75pp; English.
CC The present peptide sequence represents a specifically claimed membrane
CC binding element. The invention relates to a soluble derivative (A) of a
CC soluble polypeptide (I), which comprises at least 2 heterologous
CC membrane-binding elements (MBE) of low membrane affinity covalently
CC associated with (I). MBE interact, independently and with thermodynamic
CC additivity, with components of cellular or artificial membranes exposed
CC to extracellular fluids. (A) are used to treat disorders treatable with
CC (I) itself, specifically inflammation or any other complement-related
CC disorder (e.g. neurological disease, graft rejection, myocardial
CC infarction, sepsis, rheumatoid arthritis and many others; including
CC application to indwelling devices) and thrombolytic disease, but also to
CC treat allergy, induce weight loss, to treat ischaemia or asthma and as
CC immuno-modulators for treating multiple sclerosis. (A) are administered
CC orally, topically, by injection or inhalation at 0.01-10 (preferably
CC 0.1-10) mg/kg/day.
SQ Sequence 6 AA;

Query Match 100.0%; Score 41; DB 30; Length 6;
Best Local Similarity 100.0%; Pred. No. 6.60e+01;
Matches 6; Conservative 0; Mismatches 0; Indels 0; Gaps 0;

Db 1 grgdsp 6
   |||||
QY 1 GRGDSP 6

RESULT 38
ID R49801 standard; peptide; 6 AA.
AC R49801:
DT 23-AUG-1994 (first entry)
DE Sequence of peptide which binds to fibrinogen receptor GpIIb/IIIa.
KW Random degradation; recombination; scrambling reaction.
OS Synthetic.
PN WO9404558-A.
PD 03-MAR-1994.
PF 09-AUG-1993; U08231.
PR 21-AUG-1992; US-932200.
PA (RECE-) RECEPTOR LAB INC.
PI Hopfinger AJ, Venton DL;
DR WPI; 94-083103/10.
PT Identifying peptides which binds to a specific target - by
PT contacting target with scrambled equilibrium mixt. of many
PT peptide derived from protein by incubation with protease, for
PT detecting potential therapeutic agents
PS Example; Table 6, Page 64; 97pp; English.
CC The inventors claim a method for inexpensively and rapidly producing
CC a large and varied population of peptides and screening this varied
CC population for the presence of peptides which bind to a target, for
CC example, a macromolecule associated with a particular physiological
CC function. The specific binding peptides are isolated and sequenced,
CC synthesised on a large-scale, their biological activity is

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CC demonstrated, and then subjected to clinical testing. The random
 CC population of peptides is generated by employing a scrambling system
 CC which utilises one or more proteases, esp. papain, pepsin, bromelain,
 CC thermolysin, trypsin, pronase, chymotrypsin, subtilisin and dipeptidyl
 CC peptidase IV. A typical starting protein is casein. Targets are
 CC esp. receptors involved in physiological processes, partic.
 CC fibrinogen; sickle cell hemoglobin; collagenase IV; rennin; Gp.
 CC Iib Iiia or phospholipase A2. Fibrinogen receptor GpIibIiia binds
 CC to many RGD contg. peptides such as RGDW, RGDY and RQDM. In the
 CC example, a GpIibIiia binding system is coupled to a system for
 CC scrambling a mixture of RB, WW and GSF peptides with thermolysin
 CC and bromelain. Isolation of RGD peptides bound to the receptor
 CC would constitute proof of the activity of the scrambling system.
 CC Sequence 6 AA;

Query Match 100.0%; Score 41; DB 9; Length 6;
 Best Local Similarity 100.0%; Pred. No. 6.60e+01;
 Matches 6; Conservative 0; Mismatches 0; Indels 0; Gaps 0;

Db 1 grgdsp 6
 |||||
 QY 1 GRGDSP 6

RESULT 39

ID R29070 standard; peptide; 6 AA.
 AC R29070;
 DT 17-FEB-1993 (first entry)
 DE Gelatin deriv. peptide contg. RGD motif.
 KW Adhesive peptide; cell adhesion; inhibitor; platelet aggregation.
 OS Synthetic.

FT Key Location/Qualifiers
 FT modified_site 1 /note= "alkylated/arylated"
 FT modified_site 6 /note= "alkylated/arylated"

PN J04221400-A.
 PD 11-AUG-1992.
 PF 30-NOV-1990; 333719.
 PR 26-OCT-1990; JP-289492.
 PA (FUJF) FUJI PHOTO FILM CO LTD.
 DR WPI; 92-313683/38.
 PT Gelatin deriv. with adhesive peptide side chain - used for animal
 PT cell adhesion inhibitor and platelet aggregation-adhesion inhibitor
 PS Example; Page 12; 10pp; Japanese.
 CC The gelatin deriv. contains the Arg-Gly-Asp motif of cell adhering
 CC proteins. It comprises the essential unit of a water-sol. vinyl
 CC polymer with a pref. mol. wt. of 3000-100,000 D. The polymer shows
 CC various biological activities, e.g. immunological coordination, wound
 CC healing action and platelet aggregation inhibiting action etc.
 CC See also R29069-75.
 CC Sequence 6 AA;

Query Match 100.0%; Score 41; DB 5; Length 6;
 Best Local Similarity 100.0%; Pred. No. 6.60e+01;
 Matches 6; Conservative 0; Mismatches 0; Indels 0; Gaps 0;

Db 1 grgdsp 6
 |||||
 QY 1 GRGDSP 6

RESULT 40

ID R29054 standard; peptide; 6 AA.
 AC R29054;
 DT 17-FEB-1993 (first entry)
 DE Peptide lipid contg. RGD.
 KW Synthetic; cell migration; inhibitor; cell adhesion membrane; cell
 KW culture body.
 OS Synthetic.

FT Key Location/Qualifiers
 FT modified_site 1 /note= "acylated"

FT

FT modified_site 6 /note= "alkylated"
 PN J04221394-A.
 PD 11-AUG-1992.
 PF 29-NOV-1990; 333335.
 PR 26-OCT-1990; JP-289493.
 PA (FUJF) FUJI PHOTO FILM CO LTD.
 DR WPI; 92-313678/38.
 PT New synthetic peptide lipid(s) and salts - useful as cell
 PT migration inhibitors, cell adhesion membranes or cell culture
 PT bodies
 PS Disclosure; Page 4; 9pp; Japanese.
 CC The peptide sequence is an example of a highly generic sequence contg.
 CC the RGD motif. Compounds contg. these lipid peptides are useful as
 CC cell migration inhibitors in cell adhesion membranes or cell culture
 CC bodies. See also R29048-53.
 CC Sequence 6 AA;

Query Match 100.0%; Score 41; DB 5; Length 6;
 Best Local Similarity 100.0%; Pred. No. 6.60e+01;
 Matches 6; Conservative 0; Mismatches 0; Indels 0; Gaps 0;

Db 1 grgdsp 6
 |||||
 QY 1 GRGDSP 6

RESULT 41

ID R29068 standard; peptide; 6 AA.
 AC R29068;
 DT 17-FEB-1993 (first entry)
 DE Peptide contg. RGD motif as a side chain to a water sol. polymer.
 KW Adhesive peptide; cell adhesion; inhibitor; platelet aggregation.
 OS Synthetic.

FT Key Location/Qualifiers
 FT modified_site 1 /note= "alkylated/arylated"
 FT modified_site 6 /note= "alkylated/arylated"

PN J04221395-A.
 PD 11-AUG-1992.
 PF 20-DEC-1990; 404347.
 PR 20-DEC-1990; JP-404347.
 PA (FUJF) FUJI PHOTO FILM CO LTD.
 DR WPI; 92-313680/38.
 PT Water-soluble vinyl polymer deriv. - for animal cell adhesion
 PT inhibitor or platelet aggregation inhibitor
 PS Example; Page 13; 14pp; Japanese.
 CC The peptide sequence contains the Arg-Gly-Asp motif of cell
 CC adhering proteins. It comprises the essential unit of a
 CC water-sol. vinyl polymer with a pref. mol. wt. of 3000-100,000 D.
 CC The polymer shows various biological activities, e.g. immunological
 CC coordination, wound healing action and platelet aggregation inhibiting
 CC action etc. See also R29062-7.
 CC Sequence 6 AA;

Query Match 100.0%; Score 41; DB 5; Length 6;
 Best Local Similarity 100.0%; Pred. No. 6.60e+01;
 Matches 6; Conservative 0; Mismatches 0; Indels 0; Gaps 0;

Db 1 grgdsp 6
 |||||
 QY 1 GRGDSP 6

RESULT 42

ID R80966 standard; peptide; 6 AA.
 AC R80966;
 DT 24-APR-1996 (first entry)
 DE RGD contg. peptide used in integrin binding studies.
 KW Integrin; chimeric; extracellular; transmembrane; cytoplasmic;
 KW ligand; activation inhibitor; inflammation; autoimmune disease;
 KW transplantation; thrombus; cancer.

OS Homo sapiens.
 PN WO9525173-A1.
 PD 21-SEP-1995.
 PF 06-MAR-1995; U02885.
 PR 14-MAR-1994; US-214770.
 PA (SCRI) SCRIPPS RES INST.
 PI Ginsberg MH, O'Toole TE;
 DR WPI; 95-336977/43.
 PT Chimeric integrin mol. comprising reporter and target integrin
 PT domains - for identifying integrin activation inhibitors which are
 PT useful for treating or preventing unwanted immune responses
 PS Disclosure: Page 12; 50pp; English.
 CC Chimeric integrin molecules comprising the extracellular and
 CC transmembrane domains of a reporter integrin (RI) fused to the cyto-
 CC plasmic domain of a target integrin (TI). The RI is pref. from
 CC alphaIIB-beta3 and the TI is pref. chosen from alphaV-beta3, alphaM-
 CC beta2, alpha1-beta2, alpha2-beta1, alpha5-beta1, alpha6a-beta1,
 CC alpha1b-beta3 or alpha4-beta1. This sequence is used in cell
 CC binding assays to determine the cell-type specificity of the
 CC chimeric integrins. The chimeric integrins are useful for
 CC identifying TI inhibitors which can be used to treat mammalian
 CC cancers, thrombosis or any unwanted immune response, e.g.
 CC inflammation; autoimmune disease; allergies or organ/tissue
 CC transplant rejection.
 SQ Sequence 6 AA;

Query Match 100.0%; Score 41; DB 15; Length 6;
 Best Local Similarity 100.0%; Pred. No. 6.60e+01;
 Matches 6; Conservative 0; Mismatches 0; Indels 0; Gaps 0;

Db 1 grgdsp 6
 |||||
 QY 1 GRGDSP 6

RESULT 43
 ID R27033 standard; peptide; 6 AA.
 AC R27033;
 DT 17-FEB-1993 (first entry)
 DE Peptide lipid contg. RGD.
 KW Synthetic; cell migration; inhibitor; cell adhesion membrane; cell
 KW culture body.
 OS Synthetic.
 FH Key Location/Qualifiers
 FT modified_site 1 /note= "acylated"
 FT modified_site 6 /note= "alkylated"
 FT J04221395-A.
 PN 11-AUG-1992.
 PD 29-NOV-1990; 333336.
 PR 26-OCT-1990; JP-289494.
 PA (FUJF) FUJI PHOTO FILM CO LTD.
 WPI; 92-313679/38.
 DT New synthetic peptide lipid(s) and salts - useful as cell
 PT migration inhibitors, cell adhesion membranes or cell culture
 PT bodies
 PS Disclosure: Page 4; 9pp; Japanese.
 CC The peptide sequence is an example of a highly generic sequence contg.
 CC the RGD motif. Compounds contg. these lipid peptides are useful as
 CC cell migration inhibitors in cell adhesion membranes or cell culture
 CC bodies. See also R27027-32.
 SQ Sequence 6 AA;

Query Match 100.0%; Score 41; DB 5; Length 6;
 Best Local Similarity 100.0%; Pred. No. 6.60e+01;
 Matches 6; Conservative 0; Mismatches 0; Indels 0; Gaps 0;

Db 1 grgdsp 6
 |||||
 QY 1 GRGDSP 6

RESULT 44
 ID R70478 standard; peptide; 6 AA.
 AC R70478;
 DT 20-DEC-1995 (first entry)
 DE Cancer metastasis inhibitory RGD peptide derivative #6.
 DE Cancer metastasis; adhesive peptide; core sequence; dextran; cancer;
 KW water soluble polysaccharide; metastasis; wound; immunogenicity.
 OS Synthetic.
 PN J07089999-A.
 PD 04-APR-1995.
 PF 17-SEP-1993; 254779.
 PR 17-SEP-1993; JP-254779.
 PA (JAPG) NIPPON ZEON KK.
 DR WPI; 95-167254/22.
 PT Cancer metastasis inhibitory peptide derivs. - useful for inhibition
 PT of cancer metastasis, healing of wounds and regulation of
 PT immunogenicity.
 PS Disclosure: Page 2; 6pp; Japanese.
 CC The peptides R70472-90 and R82907-24 are peptide derivatives which
 CC inhibit cancer metastasis. They are composed of an adhesive peptide with
 CC a core sequence selected from: RGD (R70472-85), YIGSR (R70486-90) or
 CC other sequence (R82907-24), linked to a water soluble polysaccharide,
 CC preferably a water soluble dextran, at the C-terminus. The peptides are
 CC useful in inhibiting cancer metastasis, healing wounds and the regulation
 CC of immunogenicity.
 SQ Sequence 6 AA;

Query Match 100.0%; Score 41; DB 14; Length 6;
 Best Local Similarity 100.0%; Pred. No. 5.60e+01;
 Matches 6; Conservative 0; Mismatches 0; Indels 0; Gaps 0;

Db 1 grgdsp 6
 |||||
 QY 1 GRGDSP 6

RESULT 45
 ID W15598 standard; peptide; 6 AA.
 AC W15598;
 DT 11-JUN-1997 (first entry)
 DE Platelet aggregation inhibitor #22.
 KW Platelet aggregation inhibitor; RGD analogue; cyclic peptide; fibrinogen;
 KW hydrophobically enhanced analogue; blood platelet; endothelial surface;
 KW blood vessel; serum protein; GP IIB/IIIA glycoprotein complex; integrin;
 KW plasma membrane; thrombosis; cell adhesion receptor; fibronectin;
 KW vitronectin receptor; vascular graft occlusion; therapy.
 OS Synthetic.
 FH Key Location/Qualifiers
 FT modified_site 1..6 /note= "forms peptide bond to create cyclic peptide"
 FT US5612311-A.
 PN 18-MAR-1997.
 PD 06-APR-1990; 506444.
 PF 08-APR-1990; US-506444.
 PR 05-APR-1991; US-681119.
 PR 14-APR-1993; US-050736.
 PR 02-MAR-1994; US-204817.
 PR 22-DEC-1994; US-363963.
 PA (JLJOL) LA JOLLA CANCER RES FOUND.
 PI Cheng S, Craig WS, Lukeman DS, Pierschbacher MD;
 PI Tschopp JF;
 DR WPI; 97-192139/17.
 PT RGD-contg. peptide(s) that inhibit platelet aggregation - useful for
 PT treating thrombosis
 PS Example 5; Column 39; 50pp; English.
 CC W15598-W15695 represent platelet aggregation inhibitors. All of these
 CC sequences are hydrophobically enhanced RGD peptide analogues. The
 CC interaction of blood platelets with the endothelial surface of injured
 CC blood vessels and with other platelets (platelet aggregation) is a major
 CC factor in the course of development of thrombi. Thrombosis is a serious
 CC condition which can cause tissue damage and eventually death (if
 CC untreated). Platelet aggregation is dependent upon the binding of
 CC fibrinogen and other serum proteins to the GP IIB/IIIA glycoprotein

CC complex on the platelet plasma membrane. GP IIB/IIIA is a member of the
 CC integrin family of cell adhesion receptors, which are known to recognise
 CC a RGD tripeptide recognition sequence. The peptides inhibit platelet
 CC aggregation without prolonging bleeding time. These sequences have high
 CC affinity for the IIB/IIIA receptor and low affinity for the fibronectin
 CC and vitronectin receptors. The peptides are used as platelet aggregation
 CC inhibitors for treating thrombosis and vascular graft occlusion.
 SQ Sequence 6 AA;

Query Match 100.0%; Score 41; DB 21; Length 6;
 Best Local Similarity 100.0%; Pred. No. 6.60e+01;
 Matches 6; Conservative 0; Mismatches 0; Indels 0; Gaps 0;

Db 1 grgdsp 6
 |||||
 Qy 1 GRGDSP 6

RESULT 46
 ID R36712 standard; peptide; 6 AA.
 AC R36712;
 DT 26-AUG-1993 (first entry)
 DE Adhesion formation prevention RGD-contg. peptide.
 KW Tissue repair; peritoneum; surgery; post-surgically; inhibition;
 KW platelet aggregation; cardiovascular; orthopedic; thoracic;
 KW ophthalmic; CNS; use.
 OS Synthetic.
 FH Key Location/Qualifiers
 FT modified_site 1
 /note= "n-methyl-Gly"
 PN W09308818-A.
 PD 13-MAY-1993.
 PF 06-NOV-1992; U09494.
 PR 07-NOV-1991; US-789231.
 PA (UYSC-) UNIV SOUTHERN CALIFORNIA.
 PI Dizerega GS, Rodgers KE;
 DR WPI; 93-167381/20.
 PT Prevention of adhesion formation, partic. post-surgically - comprises
 PT administering a RGD-contg. peptide for a time sufficient to permit
 PT tissue repair
 PS Example; Page 18; 22pp; English.
 CC The sequence is that of an RGD-contg. peptide which is used in a
 CC method for prevention of adhesion formation for a time sufficient
 CC to permit tissue repair. The method is used for minimising or
 CC preventing adhesion formation, partic. in the peritoneum following
 CC surgery, but also for e.g. cardiovascular, orthopedic, thoracic,
 CC ophthalmic, CNS and other uses. In addn., the peptide inhibits
 CC platelet aggregation and does not induce inflammation or trauma
 CC at the site of administration.
 SQ Sequence 6 AA;

Query Match 100.0%; Score 41; DB 7; Length 6;
 Best Local Similarity 100.0%; Pred. No. 6.60e+01;
 Matches 6; Conservative 0; Mismatches 0; Indels 0; Gaps 0;

Db 1 grgdsp 6
 |||||
 Qy 1 GRGDSP 6

RESULT 47
 ID R70654 standard; peptide; 6 AA.
 AC R70654;
 DT 26-JUN-1995 (first entry)
 DE Synthetic RGD peptide inhibits intercellular adhesion by fibronectin.
 KW RGD peptide; competitor; fibronectin; inhibition; RGD-lipid derivative;
 KW intercellular adhesion; suppress transfer of cancer cell; liposome.
 OS Synthetic.
 FH Key Location/Qualifiers
 FT modified_site 1
 /note= "Cholesterol-CO-Gly or H-Gly"
 FT modified_site 6
 /note= "Pro-OH"

PN J06219967-A.
 PD 09-AUG-1994.
 PF 22-JAN-1993; 009290.
 PR 22-JAN-1993; JP-009290.
 PA (DDSK-) DDS KENYUSHO KK.
 DR WPI; 94-312661/39.
 PT New peptide-lipid derivs. bound directly or via linker to lipid -
 PT useful for inhibiting mouse lung cancer cell line, 3LL cell
 PT adhesion by fibronectin
 PS Example; Page 9; 12pp; Japanese.
 CC R70651-56 are RGD contg. peptides that can bind to cancer cells. The
 CC exogenous peptides compete with fibronectin and inhibit
 CC intercellular adhesion by fibronectin. The peptides are bound
 CC directly or via a linker to a lipid. A liposome suspension contg.
 CC RGD peptide was found to effectively suppress 3LL cell adhesion by
 CC fibronectin, in the mouse lung cancer cell line.
 SQ Sequence 6 AA;

Query Match 100.0%; Score 41; DB 12; Length 6;
 Best Local Similarity 100.0%; Pred. No. 6.60e+01;
 Matches 6; Conservative 0; Mismatches 0; Indels 0; Gaps 0;

Db 1 grgdsp 6
 |||||
 Qy 1 GRGDSP 6

RESULT 48
 ID W07431 standard; peptide; 6 AA.
 AC W07431;
 DT 21-JAN-1997 (first entry)
 DE Synthetic, weak, tumour invasion-inhibitory peptide.
 KW Tumour invasion; extracellular matrix; ECM; metastasis; RGD sequence;
 KW cancer; inhibition; control.
 OS Synthetic.
 PN U35547936-A.
 PD 20-AUG-1996.
 PF 22-NOV-1983; 554821.
 PR 22-NOV-1983; US-554821.
 PR 17-JUN-1985; US-744981.
 PR 10-MAR-1988; US-166530.
 PR 09-SEP-1988; US-242713.
 PR 25-FEB-1991; US-660526.
 PR 10-APR-1991; US-683585.
 PR 08-OCT-1991; US-773106.
 PR 19-JUN-1992; US-902742.
 PR 17-DEC-1993; US-169743.
 PA (LJOL-) LA JOLLA CANCER RES FOUND.
 PI Gehlsen KR, Pierschbacher MD, Ruoslahti EI;
 DR WPI; 96-392651/39.
 PT Inhibiting tumour cell invasion through an extracellular matrix -
 PT using peptide contg. the RGD sequence, partic. for preventing tumour
 PT metastasis
 PS Example 1; Column 7-8; 8pp; English.
 CC W07431-W07433 are peptides identified in an assay for tumour-invasion
 CC inhibitory activity. The peptides (contg. the RGD sequence) show a
 CC weak inhibition of tumour invasion of the ECM. Another peptide tested
 CC (see W07430) showed a significant inhibitory activity. The peptides
 CC identified can be used to treat cancer and to prevent metastasis, in
 CC partic. invasion of the extracellular matrix (ECM).
 CC The peptides are soluble.
 SQ Sequence 6 AA;

Query Match 100.0%; Score 41; DB 19; Length 6;
 Best Local Similarity 100.0%; Pred. No. 6.60e+01;
 Matches 6; Conservative 0; Mismatches 0; Indels 0; Gaps 0;

Db 1 grgdsp 6
 |||||
 Qy 1 GRGDSP 6

RESULT 49

ID W03484 standard; peptide; 6 AA.
 AC W03484;
 DT 24-OCT-1996 (first entry)
 DE Alpha(5)-Beta(1) integrin binding peptide 2.
 KW Synthetic; fibronectin; vitronectin; integrin; binding motif; adhesion;
 KW extracellular matrix protein; tumour metastasis.
 OS Synthetic.
 PN US536814-A.
 PD 16-JUL-1996.
 PF 27-SEP-1993; 127422.
 PR 27-SEP-1993; US-127422.
 PR 11-MAR-1994; US-212186.
 PA (LJOL) LA JOLLA CANCER RES FOUND.
 FI Koivunen E, Ruoslahti E;
 DR WPI; 96-341556/34.
 PT Synthetic integrin-binding peptide(s) - useful for inhibiting tumour
 PT metastasis, etc.
 PS Example 4; Column 10; 16pp; English.
 CC Peptides W03483-508 are examples of synthetic peptides generated to bind
 CC to the fibronectin/vitronectin-binding integrin alpha(5)beta(1). They
 CC are synthesised to contain the alpha(5)beta(1)-integrin peptide binding
 CC motifs: DGR, NGR or RGD. The peptides interfere with the binding of
 CC fibronectin and vitronectin to this integrin and thus may be used to
 CC block integrin-mediated cell adhesion to extracellular matrix proteins,
 CC esp. to inhibit tumour metastasis.
 CC Sequence 6 AA;
 SQ Sequence 6 AA;
 Query Match 100.0%; Score 41; DB 18; Length 6;
 Best Local Similarity 100.0%; Pred. No. 6.60e+01;
 Matches 6; Conservative 0; Mismatches 0; Indels 0; Gaps 0;
 Db 1 grgdsp 6
 QY 1 GRGDSP 6
 RESULT 50
 ID R22969 standard; Protein; 6 AA.
 AC R22969;
 DT 26-OCT-1992 (first entry)
 DE Cell adhesive peptide #3 on new CM chitin derivative side chains.
 KW CM-chitin; cell adhesion; coadhesion; wound healing; RGD peptide;
 KW immunoregulating agents; platelet coagulation; platelet adhesion.
 OS Synthetic.
 PN EP-482649-A.
 PD 29-APR-1992.
 PF 24-OCT-1991; 118179.
 PR 26-OCT-1990; JP-289491.
 PR 30-NOV-1990; JP-333718.
 PR 29-MAR-1991; JP-066156.
 PA (FUJF) FUJI PHOTO FILM CO.
 PI Kojima M, Komazawa H;
 DR WPI; 92-142753/18.
 PT New CM chitin derivs. contg. adhesive peptides - have
 PT cell-adhesive protein (antagonistic activity used for
 PT immuno-regulation and inhibiting blood-platelet coagulation
 PS Example; Page 5; 24pp; English.
 CC This peptide is an example of a claimed generic sequence, and is
 CC present on the sidechain of new CM-chitin derivatives. The peptide
 CC may be prepared by liquid or solid phase peptide synthesis and then
 CC coupled to CM-chitin or carboxylated CM-chitin by amide bond forming
 CC methods using eg CNBr, acid azides, or water soluble carbodiimides.
 CC The sequence contains the core sequence RGD of a cell adhesive
 CC protein and the CM-chitin derivatives contg. it will adhere to cells
 CC through the core sequence according to a mechanism similar to that
 CC for the cell adhesive protein. The derivatives act as antagonists
 CC of the cell adhesive protein and can be used as animal cell
 CC adhesion-inhibiting agents, wound healing agents, immunoregulating
 CC agents or platelet coagulation/adhesion-inhibiting agents.
 CC See also R22967-70.
 CC Sequence 6 AA;
 SQ Sequence 6 AA;
 Query Match 100.0%; Score 41; DB 4; Length 6;

Best Local Similarity 100.0%; Pred. No. 6.60e+01;
 Matches 6; Conservative 0; Mismatches 0; Indels 0; Gaps 0;
 Db 1 grgdsp 6
 QY 1 GRGDSP 6
 RESULT 51
 ID W57198 standard; peptide; 6 AA.
 AC W57198;
 DT 05-AUG-1998 (first entry)
 DE RGD-containing peptide SEQ ID NO:16 from W09812236 Example 9.
 KW Fibronectin; superfibronectin; first type III repeat unit; IIII;
 KW angiogenesis; psoriasis; rheumatoid arthritis; cancer; tumour.
 OS Synthetic.
 PN W09812226-A1.
 PD 26-MAR-1998.
 PF 12-SEP-1997; U16344.
 PR 20-SEP-1996; US-717169.
 PA (BURN-) BURNHAM INST.
 PI Pasqualini R, Ruoslahti E;
 DR WPI; 98-217210/19.
 PT Inhibition of angiogenesis by superfibronectin - useful for
 PT treating, e.g. psoriasis, rheumatoid arthritis and various cancers
 PS Example 9; Page 63; 105pp; English.
 CC A method has been developed of ameliorating cancer, or inhibiting
 CC angiogenesis, in a subject. The method comprises administering a
 CC superfibronectin or a superfibronectin-generating compound. The
 CC present sequence represents a peptide used in an example of the
 CC present invention. The method can be used to treat cancer, ocular
 CC neovascularisation, diabetic retinopathy, haemangioma, rheumatoid
 CC arthritis, psoriasis, granuloma, and granulation tissue. The cancer
 CC treated by the method can comprise a solid tumour, such as a melanoma,
 CC osteosarcoma, ovarian, vascular or epithelial cell tumour. When it is in
 CC an epithelial cell tumour, it is preferably a colon carcinoma, breast
 CC carcinoma, or ovarian carcinoma. When it is a vascular cell tumour, it is
 CC selected from haemangiomas, Kaposi's sarcoma, lymphangioma, gliomangioma,
 CC angiosarcoma, or haemangioendothelioma. The method inhibits or prevents
 CC a tumour cell metastasis in a subject especially inhibits the tumour
 CC cell migration, attachment, or inhibiting growth of a tumour cell in a
 CC subject having a pathology with an angioproliferative component, where
 CC the inhibition causes regression of the pathology. The route of
 CC administration is intravenous, intramuscular, intradermal, subcutaneous,
 CC intracranial, intracerebrospinal, epidural, topical or oral
 CC administration.
 CC Sequence 6 AA;
 SQ Sequence 6 AA;
 Query Match 100.0%; Score 41; DB 31; Length 6;
 Best Local Similarity 100.0%; Pred. No. 6.60e+01;
 Matches 6; Conservative 0; Mismatches 0; Indels 0; Gaps 0;
 Db 1 grgdsp 6
 QY 1 GRGDSP 6
 RESULT 52
 ID R29056 standard; peptide; 6 AA.
 AC R29056;
 DT 17-FEB-1993 (first entry)
 DE Peptide contg. RGD motif as a side chain to a water sol. polymer.
 KW Adhesive peptide; cell adhesion; inhibitor; platelet aggregation.
 OS Synthetic.
 FH Key Location/Qualifiers
 FT modified_site 1 /note= "alkylated/arylated"
 FT modified_site 6 /note= "alkylated/arylated"
 FT modified_site 6 /note= "alkylated/arylated"
 FT J04221397-A.
 PD 11-AUG-1992.
 PR 20-DEC-1990; 404484.
 PR 20-DEC-1990; JP-404484.

PA (FUJIF) FUJII PHOTO FILM CO LTD.
 DR WPI; 92-313681/38.
 PT Water-soluble vinyl polymer deriv.- for animal cell adhesion
 PS Inhibitor or platelet aggregation inhibitor
 Example; Page 12; 14pp; Japanese.
 CC The peptide sequence contains the Arg-Gly-Asp motif of cell
 CC adhering proteins. It comprises the essential unit of a
 CC water-sol. vinyl polymer with a pref. mol. wt. of 3000-100,000 D.
 CC The polymer shows various biological activities, e.g. immunological
 CC coordination, wound healing action and platelet aggregation inhibiting
 CC action etc. See also R29055-61.
 SQ Sequence 6 AA;

Query Match 100.0%; Score 41; DB 5; Length 6;
 Best Local Similarity 100.0%; Pred. No. 6.60e+01;
 Matches 6; Conservative 0; Mismatches 0; Indels 0; Gaps 0;

Db 1 grgdsp 6
 |||||
 QY 1 GRGDSP 6

RESULT 53
 ID W48597 standard; peptide; 6 AA.
 AC W48597;
 DT 18-AUG-1998 (first entry)
 DE Integrin receptor antagonist peptide 136.
 KW Integrin receptor antagonist; cell adhesion modulator; leukocyte;
 KW extracellular matrix; fibronectin; ARDS; thrombosis; inflammation.
 OS Synthetic.
 FH Key Location/Qualifiers
 FT Modified_site 1..6
 FT /note= "Gly is conjugated to Pro"
 FT Modified_site 1..2
 FT /note= "Gly is linked to Arg by a pseudo-CH2.NH linkage"

US5721210-A.
 24-FEB-1998.
 PF 07-JUN-1995; 485019.
 PR 04-JUN-1993; US-961889.
 PR 09-JUL-1990; US-550330.
 PR 09-JUL-1991; WO-U04862.
 PR 07-JUN-1995; US-485019.
 PA (TANA) TANABE SEIYAKU CO.
 PI Cardarelli PM, Chiang S, Lobl TJ;
 DR WPI; 98-168442/15.
 PT New cyclic peptide(s) and peptidomimetic compounds - are integrin
 PT receptor antagonists useful in modulating cell adhesion.
 PS Disclosure; Column 38; 32pp; English.
 CC The present sequence represents a synthetic peptide which
 CC acts as an antagonist to integrin receptors. Some of the residues
 CC are in reverse orientation which means that the normal carboxyl to
 CC amino direction of peptide bond formation in the amino acid backbone
 CC has been reversed such that the amino portion of the peptide bond
 CC precedes the carbonyl portion. The invention provides various synthetic
 CC peptides which act as cell adhesion modulators because they mimic
 CC extra-cellular matrix ligands or other cell adhesion ligands that bind
 CC to receptors such as integrin receptors, including fibronectin,
 CC laminin, LFA-1, MAC-1, p150,95, vitronectin and gp1b/IIb receptors.
 CC Some of the peptides contain the amino acid sequence Arg-Gly-Asp (RGD).
 CC Others contain non-RGD sequences, for e.g RGD sequences, and reverse
 CC orientation forms of amino acid residues. The synthetic peptides
 CC are useful in modulating cell adhesion, including adhesion related to
 CC fibronectin, as well as leukocyte adhesion to endothelial cells. They
 CC are also claimed to be useful in the study, diagnosis, treatment or
 CC prevention of diseases which relate to cell adhesion, e.g. adult
 CC respiratory distress syndrome (ARDS), thrombosis and inflammatory
 CC conditions.
 SQ Sequence 6 AA;

Query Match 100.0%; Score 41; DB 31; Length 6;
 Best Local Similarity 100.0%; Pred. No. 6.60e+01;
 Matches 6; Conservative 0; Mismatches 0; Indels 0; Gaps 0;

Db 1 grgdsp 6
 |||||
 QY 1 GRGDSP 6

RESULT 54
 ID W25182 standard; peptide; 6 AA.
 AC W25182;
 DT 05-JAN-1998 (first entry)
 DE RGD-peptide capable of binding cell adhesion molecules.
 KW RGD; arginine; glycine; aspartic acid; cell adhesion molecule;
 KW binding; bladder irrigation; tumour removal; endoscopic operation;
 KW transurethral resection; cancer; neoplasia.
 OS Synthetic.
 FH Key Location/Qualifiers
 FT Modified_site 1
 FT /label= MeGly
 PN DE19529909-A1.
 PD 20-FEB-1997.
 PF 15-AUG-1995; 029909.
 PR 15-AUG-1995; DE-029909.
 PA (FREP) FRESENIUS AG.
 PI Boehle A;
 DR WPI; 97-133793/13.
 PT Endoscopic irrigation solns. - contg. peptide(s) that bind to cell
 PT adhesion molecules
 PS Claim 5; Page 8; 8pp; German.
 CC W25173-W25186 are peptides containing an RGD sequence or equivalent.
 CC The peptides are capable of binding to cell adhesion molecules and
 CC are used in aqueous irrigation solutions for use during and after
 CC endoscopic operations. Preferred irrigation solutions are
 CC electrolyte-free and contain 1 microg/ml to 100 mg/ml of one or more
 CC oligopeptides containing the amino acid sequences: RGD, LDV, IDA, DGEA,
 CC GPPG, VTL, YIGSR, KQAGDV and/or REDV (given in one letter amino acid
 CC code). The solutions are especially used for irrigating the bladder
 CC during and after tumour removal by transurethral resection. The
 CC peptides protect against recurrence of tumours.
 SQ Sequence 6 AA;

Query Match 100.0%; Score 41; DB 24; Length 6;
 Best Local Similarity 100.0%; Pred. No. 6.60e+01;
 Matches 6; Conservative 0; Mismatches 0; Indels 0; Gaps 0;

Db 1 grgdsp 6
 |||||
 QY 1 GRGDSP 6

RESULT 55
 ID R37834 standard; Protein; 6 AA.
 AC R37834;
 DT 12-OCT-1993 (first entry)
 DE Cell adhesion motif encoded by insert 74RGD6.
 KW Fibronectin; cell-cell adhesion; Arg-Gly-Asp motif; human lysozyme;
 KW bacteriolysis.
 OS Synthetic.
 FH Key Location/Qualifiers
 FT binding_site 2..5
 FT /label= cell_adhesion_motif
 PN J05115284-A.
 PD 14-MAY-1993.
 PF 29-OCT-1991; 282866.
 PR 29-OCT-1991; JP-282866.
 PA (FUJI-) FUJITA GAKUEN GH.
 PA (TANP-) TANPAKU KOGAKU KENKYUSHO KK.
 DR WPI; 93-190693/24.
 DR N-PSDB; Q42608.
 PT New mutant human lysozyme, - is incorporated into chimeric
 PT protein for use in analysing high order structure of aminoacid
 PT sequence contg. cell adhesive function site
 PS Example 1; page 6; 10pp; Japanese.
 CC The double-stranded DNA 74RGD6 is one of 5 preferred sequences, each

CC coding for a cell-adhesion motif, which can be inserted between
 CC the codons for Val 74 and Asn 75 of human lysozyme. The resulting
 CC mutant lysozyme polypeptide has cell adhesion properties in
 CC addition to its bacteriolytic ability. See Q42607-Q42611.
 SQ Sequence 6 AA;

Query Match 100.0%; Score 41; DB 7; Length 6;
 Best Local Similarity 100.0%; Pred. No. 6.60e+01;
 Matches 6; Conservative 0; Mismatches 0; Indels 0; Gaps 0;

Db 1 grgdsp 6
 |||||
 QY 1 GRGDSP 6

RESULT 56
 ID R32387 standard; peptide; 6 AA.
 AC R32387;
 DT 01-JUL-1993 (first entry)
 DE Fibrinogen fragment which binds to receptor.
 KW integrin; glycoprotein GPIIb/IIIa; platelet aggregation;
 KW protein scrambling; Fb.
 OS Synthetic.
 PN W09304079-A.
 PD 04-MAR-1993.
 PF 20-AUG-1992; U06933.
 PR 21-AUG-1991; US-813315.
 PA (RECE-) RECEPTOR LAB INC.
 PI HOPfinger AJ, Le Breton G, Venton DL;
 DR WPI; 93-093932/11.
 PT Identifying peptide(s) which bond to predetermined targets - by
 PT random degradation and recombination of peptide(s) and isolating
 PT bound peptide(s)
 PS Example 4; Page 65; 89pp; English.
 CC The major cell surface integrin of platelets, GPIIb/IIIa, binds
 CC fibrinogen. The hexapeptide motif GRGDSP in fibrinogen represents
 CC the binding site.
 SQ Sequence 6 AA;

Query Match 100.0%; Score 41; DB 6; Length 6;
 Best Local Similarity 100.0%; Pred. No. 6.60e+01;
 Matches 6; Conservative 0; Mismatches 0; Indels 0; Gaps 0;

Db 1 grgdsp 6
 |||||
 QY 1 GRGDSP 6

RESULT 57
 ID R79077 standard; peptide; 6 AA.
 AC R79077;
 DT 24-JAN-1996 (first entry)
 DE Alpha5/betal integrin binding peptide #10.
 KW High affinity; integrin binding peptide; alpha5/betal; alphav/beta5;
 KW alphav/beta3; RGD; stable configuration; wound healing; tumour;
 KW osteoclast attachment; bone; angiogenesis; metastasis; tumour;
 KW smooth muscle cell migration.
 OS Synthetic.
 PN W09514714-A1.
 PD 01-JUN-1995.
 PF 22-NOV-1994; U13542.
 PR 24-NOV-1993; US-158001.
 PR 04-AUG-1994; US-286861.
 PA (LJOL-) LA JOLLA CANCER RES FOUND.
 PI Koivunen E, Ruoslahti E;
 DR WPI; 95-206899/27.
 PT High affinity integrin binding peptides - can be used to attach
 PT cells to a substrate, inhibit the attachment of osteoclasts to bone,
 PT promote wound healing, inhibit angiogenesis, metastasis of tumours
 PT and migration of smooth muscle cells
 PS Example 13; Page 39; 86pp; English.
 CC The sequences given in R76185-200 and R79073-94 are high affinity
 CC integrin binding peptides which bind to various integrins. Peptides

CC which bind to alpha5/betal integrins contain the motifs given in
 CC R76185-86 and peptides which bind to alphav/beta5 and alphav/beta3
 CC integrins contain the motif given in R76187. Alphav/beta5 integrins
 CC are also bound by RGD containing peptides. These peptides assume a
 CC conformationally stabilised configuration which is due to the
 CC formation of a disulphide bond, a peptide bond or a lactam bond.
 CC These peptides may be used for isolating the complementary integrin
 CC from a sample mixture by contacting them under ionic conditions to
 CC allow binding of the integrin to the peptide and then separating the
 CC integrin from the peptide. They can be used for attaching cells to
 CC a substrate, by binding them to the substrate with the cell. The
 CC peptides promote wound healing when applied locally and inhibit the
 CC attachment of osteoclasts to bone. They inhibit angiogenesis,
 CC metastasis of tumours and migration of smooth muscle cells.
 SQ Sequence 6 AA;

Query Match 100.0%; Score 41; DB 14; Length 6;
 Best Local Similarity 100.0%; Pred. No. 6.60e+01;
 Matches 6; Conservative 0; Mismatches 0; Indels 0; Gaps 0;

Db 1 grgdsp 6
 |||||
 QY 1 GRGDSP 6

RESULT 58
 ID R99890 standard; peptide; 6 AA.
 AC R99890;
 DT 05-NOV-1996 (first entry)
 DE Control synthetic peptide ligand.
 KW fibrinogen; blood clotting; GPIIb-IIIa receptor; binding; complex;
 KW epitope; exposed; monoclonal antibody.
 OS Synthetic.
 PN US5470738-A.
 PD 28-NOV-1995.
 PF 08-JUL-1987; 070953.
 PR 08-JUL-1987; US-070953.
 PR 31-MAR-1988; US-175342.
 PR 05-OCT-1989; US-417565.
 PR 04-OCT-1993; US-131320.
 PA (SCRI) SCRIPPS RES INST.
 PI Frelinger AL, Ginsberg MH, Plow EF;
 DR WPI; 96-019874/02.
 PT Monoclonal antibodies specific for ligand-bound GPIIb-IIIa receptor
 PT - useful for detection of clotting disorders and thrombi
 PS Example 5; Column 25; 20pp; English.
 CC Monoclonal antibodies specific for a ligand-induced binding site on
 CC GPIIa, esp. one induced in a platelet-associated GPIIb-IIIa/fibrinogen
 CC complex are claimed. The MAb binds an epitope exposed upon binding of
 CC the ligand and receptor. The epitope is not present on non-bound ligand
 CC or receptor. The MABs are useful to prevent blood clotting and in
 CC diagnostics. The present sequence is a synthetic peptide ligand used to
 CC show the specificity of the antibody-binding only in association with
 CC RGD-contg. ligands.
 SQ Sequence 6 AA;

Query Match 97.6%; Score 40; DB 18; Length 6;
 Best Local Similarity 83.3%; Pred. No. 9.04e+01;
 Matches 5; Conservative 1; Mismatches 0; Indels 0; Gaps 0;

Db 1 grgesp 6
 |||:|
 QY 1 GRGDSP 6

RESULT 59
 ID W86168 standard; peptide; 6 AA.
 AC W86168;
 DT 04-MAR-1999 (first entry)
 DE Peptide used in gel contraction assays.
 KW wound contraction; reduction; inhibition; tissue regeneration; scar;
 KW wound; joint motion; body deformation; gel contraction.
 OS Synthetic.

PN US5851994-A.
 PD 22-DEC-1998.
 PF 06-JUN-1995; 473025.
 PR 06-JUN-1995; US-473025.
 PR 28-APR-1994; US-234979.
 PA (LJOL-) LA JOLLA CANCER RES FOUND.
 PI Polarek J, Schreiber R;
 DR WPI; 99-080478/07.
 PT Inhibition of wound contraction - with peptide derivatives rich in
 PT basic amino acids
 PS Example 2; Column 13; 16pp; English.
 CC The invention provides methods for reduction or inhibition of wound
 CC contraction that comprises administration of a peptide having more than
 CC 3 consecutive basic amino acid residues. Alternatively, the peptide
 CC contains the amino acid sequence Arg-Gly-Asp and a basic amino acid
 CC sequence, or the peptide comprises 6-30 amino acids in which at least
 CC 4 out of a sequence of 6 consecutive amino acids are basic amino acids.
 CC The method is used to allow normal tissue regeneration without excessive
 CC scar formation which, in the case of large wounds, can result in loss of
 CC joint motion or major body deformation. This peptide is used in gel
 CC contraction assays along with the claimed peptides (W86170-83) to
 CC determine the activity of a peptide to reduce or inhibit gel contraction.
 SQ Sequence 6 AA;

Query Match 97.6%; Score 40; DB 39; Length 6;

Best Local Similarity 83.3%; Pred. No. 9.04e+01;

Matches 5; Conservative 1; Mismatches 0; Indels 0; Gaps 0;

Db 1 grgesp 6

|||:|

QY 1 GRGDSP 6

RESULT 60

ID R04613 standard; protein; 6 AA.

AC R04613;

DT 03-SEP-1990 (first entry)

DE Antiviral agent.

KW Antiviral; M2; poliovirus; polio; hepatitis.

OS Synthetic.

PN J02078631-A.

PD 19-MAR-1990.

PF 14-SEP-1988; 228843.

PR 14-SEP-1988; JP-228843.

PA (NIHA) Nippon Mining KK.

DR WPI; 90-129060/17.

PT Antiviral agent contg. tri:peptide (unit) -

PT of basic aminoacid, then alanine, glycine or sarcosine, and

PT acidic aminoacid, effective against virus with protein-terminated DNA

PT or RNA.

PS Disclosure; 4pp; Japanese.

CC Peptide is effective against inhibiting propagation of DNA or RNA

CC bonded, protein containing viruses eg. Poliovirus, Hepatitis virus.

CC Sequence 6 AA;

SQ

Query Match 97.6%; Score 40; DB 1; Length 6;

Best Local Similarity 83.3%; Pred. No. 9.04e+01;

Matches 5; Conservative 1; Mismatches 0; Indels 0; Gaps 0;

Db 1 grgesp 6

|||:|

QY 1 GRGDSP 6

RESULT 61

ID R79079 standard; peptide; 6 AA.

AC R79079;

DT 24-JAN-1996 (first entry)

DE Integrin binding control peptide.

KW High affinity; integrin binding peptide; alphas5/beta1; alphav/beta5;

KW alphav/beta3; RGD; stable configuration; wound healing;

KW osteoclast attachment; bone; angiogenesis; metastasis; tumour;

KW smooth muscle cell migration.

OS Synthetic.

PN WO9514714-A1.

PD 01-JUN-1995.

PR 22-NOV-1994; UI3542.

PR 24-NOV-1993; US-158001.

PR 04-AUG-1994; US-286861.

PA (LJOL-) LA JOLLA CANCER RES FOUND.

PI Koivunen E, Ruoslahti E;

DR WPI; 95-206899/27.

PT High affinity integrin binding peptides - can be used to attach

PT cells to a substrate, inhibit the attachment of osteoclasts to bone,

PT promote wound healing, inhibit angiogenesis, metastasis of tumours

PT and migration of smooth muscle cells

PS Example 6; Page 29; 86pp; English.

CC The sequences given in R76185-200 and R79073-94 are high affinity

CC integrin binding peptides which bind to various integrins. Peptides

CC which bind to alphas5/beta1 integrins contain the motifs given in

CC R76185-86 and peptides which bind to alphav/beta5 and alphav/beta3

CC integrins contain the motif given in R76187. Alphav/beta5 integrins

CC are also bound by RGD containing peptides. These peptides assume a

CC conformationally stabilised configuration which is due to the

CC formation of a disulphide bond, a peptide bond or a lactam bond.

CC These peptides may be used for isolating the complementary integrin

CC from a sample mixture by contacting them under ionic conditions to

CC allow binding of the integrin to the peptide and then separating the

CC integrin from the peptide. They can be used for attaching cells to

CC a substrate, by binding them to the substrate with the cell. The

CC peptides promote wound healing when applied locally and inhibit the

CC attachment of osteoclasts to bone. They inhibit angiogenesis,

CC metastasis of tumours and migration of smooth muscle cells. This

CC peptide had no effect on integrin binding and was used as a control.

SQ Sequence 6 AA;

Query Match 97.6%; Score 40; DB 14; Length 6;

Best Local Similarity 83.3%; Pred. No. 9.04e+01;

Matches 5; Conservative 1; Mismatches 0; Indels 0; Gaps 0;

Db 1 grgesp 6

|||:|

QY 1 GRGDSP 6

RESULT 62

ID W11185 standard; Peptide; 6 AA.

AC W11185;

DT 15-JAN-1998 (first entry)

DE Control peptide.

KW Breast tumour homing peptide; cancer; in vivo panning; screening;

KW phage display; drug delivery.

OS Synthetic.

PN WO9710507-A1.

PD 20-MAR-1997.

PF 10-SEP-1996; UI4600.

PR 11-SEP-1995; US-526710.

PR 11-SEP-1995; US-526708.

PA (LJOL-) LA JOLLA CANCER RES FOUND.

PI Pasqualini R, Ruoslahti E;

DR WPI; 97-202359/18.

PT Obtaining compound that homes to selected organ or tissue - by in

PT vivo panning method, specifically to identify brain, kidney,

PT angiogenic vasculature or tumour tissue homing peptide(s)

PS Example 3; Page 64; 75pp; English.

CC Coinjection of this synthetic inactive control peptide with phage

CC expressing an RGD-containing breast tumour-homing peptide had no

CC effect on the amount of phage expressing the tumour homing peptide

CC in the tumour. Tumour homing peptides (see W13412-52) have been

CC selected using a novel in vivo panning method and are useful for

CC delivering e.g. toxins, drugs and labels to selected organs or

CC tissues.

SQ Sequence 6 AA;

Query Match 97.6%; Score 40; DB 25; Length 6;

Best Local Similarity 83.3%; Pred. No. 9.04e+01;

Matches 5; Conservative 1; Mismatches 0; Indels 0; Gaps 0;

Db 1 grgsp 6
|||:|

QY 1 GRGDSP 6

RESULT 63

ID W66843 standard; peptide; 6 AA.

AC W66843;

DE Peptide useful for altering bone resorption.

KW bone resorption; pharmacore; angiogenesis; restenosis; integrin receptor;

KW Alpha v beta 3 integrin receptor; osteoclast.

OS Synthetic.

PN US5807819-A.

PD 15-SEP-1998.

PF 12-APR-1995; 421698.

PR 12-APR-1995; US-421698.

PR 15-APR-1994; US-227316.

PR 08-SEP-1994; US-303052.

PA (LJOL-) LA JOLLA CANCER RES CENT.

PI Cheng S, Ingram R, Mullen D, Tschopp JF;

DR WPI; 98-555601/47.

PT Use of peptide derivatives which can alter integrin receptor binding

PT - for altering bone resorption, treating angiogenesis or restenosis

PT and altering integrin receptor mediated interactions

PS Example 2; Figure 2A; 87pp; English.

CC A new method is claimed for altering bone resorption. It comprises

CC administration of a peptide of formula: $X_1X_2X_3X_4GDX_5X_6X_7X_8$; where X_1 =

CC RIR2N or 0-10 amino acids (optionally protected by acetylation at the N-

CC terminus); X_2 = absent or 1 amino acid; X_3 = absent or 1 or 2 amino

CC acids; X_4 = N-Me-Arg; X_5 = residue which provides an ionic interaction

CC with an integrin receptor, or is Msa, Psa or Tfss; X_6 = residue which

CC has an aliphatic side chain; a non-natural amino acid that is

CC hydrophobic; or Thr; X_7 = a residue capable of forming a bond (i) with a

CC bridging amino acid of X_2 , (ii) with X_3 when X_2 is absent, or (iii) with

CC X_4 when X_2 and X_3 are absent, to conformationally restrain the peptide;

CC X_8 = NR3R4; OR5; or 0-10 amino acids, optionally protected as an amide at

CC the C-terminus; R1, R3-R5 = H or alkyl; R2 = H, alkyl, alkyl-CO or

CC phenyl-CO. The peptides are useful for inhibiting bone resorption,

CC angiogenesis or restenosis, and for altering integrin receptor-mediated

CC interactions, especially alpha v beta 3 integrin receptor-mediated

CC binding of cells to a matrix. They may be used for reducing or inhibiting

CC osteoclast binding to a matrix. The present sequence represents an

CC example of a peptide disclosed in the specification.

SQ Sequence 6 AA;

Query Match 97.6%; Score 40; DB 36; Length 6;
Best Local Similarity 83.3%; Pred. No. 9.04e+01;
Matches 5; Conservative 1; Mismatches 0; Indels 0; Gaps 0;

Db 1 grgsp 6
|||:|

QY 1 GRGDSP 6

RESULT 64

ID W03491 standard; peptide; 6 AA.

AC W03491;

DE Alpha(5)-Beta(1) integrin binding peptide 9.

KW Synthetic; fibronectin; vitronectin; integrin; binding motif; adhesion;

KW extracellular matrix protein; tumour metastasis.

OS Synthetic.

PN US5536814-A.

PD 16-JUL-1996.

PF 27-SEP-1993; 127422.

PR 27-SEP-1993; US-127422.

PR 11-MAR-1994; US-212186.

PA (LJOL-) LA JOLLA CANCER RES FOUND.

PI Koivunen E, Ruoslahti E;

DR WPI; 96-341556/34.

Synthetic integrin-binding peptide(s) - useful for inhibiting tumour

PT metastasis, etc.

PS Disclosure; Fig 4A; 16pp; English.

CC Peptides W03483-508 are examples of synthetic peptides generated to bind

CC to the fibronectin/vitronectin-binding integrin alpha(5)beta(1). They

CC are synthesised to contain the alpha(5)beta(1)-integrin peptide binding

CC motifs: DGR, NGR or RGD. The peptides interfere with the binding of

CC fibronectin and vitronectin to this integrin and thus may be used to

CC block integrin-mediated cell adhesion to extracellular matrix proteins,

CC esp. to inhibit tumour metastasis.

SQ Sequence 6 AA;

Query Match 97.6%; Score 40; DB 18; Length 6;
Best Local Similarity 83.3%; Pred. No. 9.04e+01;
Matches 5; Conservative 1; Mismatches 0; Indels 0; Gaps 0;

Db 1 grgsp 6
|||:|

QY 1 GRGDSP 6

RESULT 65

ID W07429 standard; peptide; 6 AA.

AC W07429;

DE 21-JAN-1997 (first entry)

DE Control peptide used in tumour invasion-inhibition assay.

KW Tumour invasion; extracellular matrix; ECM; metastasis; RGD sequence;

KW cancer; inhibition; control.

OS Synthetic.

PN US5547936-A.

PD 20-AUG-1996.

PF 22-NOV-1983; 554821.

PR 17-JUN-1985; US-554821.

PR 10-MAR-1988; US-166530.

PR 09-SEP-1988; US-242713.

PR 25-FEB-1991; US-660526.

PR 10-APR-1991; US-683585.

PR 08-OCT-1991; US-773106.

PR 19-JUN-1992; US-902742.

PR 17-DEC-1993; US-169743.

PA (LJOL-) LA JOLLA CANCER RES FOUND.

PI Gehlsen KR, Pierschbacher MD, Ruoslahti EI;

DR WPI; 96-392651/39.

PT Inhibiting tumour cell invasion through an extracellular matrix -

PT using peptide contg. the RGD sequence, partic. for preventing tumour

PT metastasis

PS Example 3; Column 7-8; 8pp; English.

CC W07429 is a control peptide used in an assay for testing peptides

CC for tumour-invasion inhibitory activity. The peptides suspected of

CC having this ability contained the RGD sequence (Arg-Gly-Asp). The

CC control did not and was not expected to show any inhibitory action.

CC Other peptides tested (see W07430-W06433) did show inhibitory

CC activity, these peptides can be used to treat cancer and to prevent

CC metastasis, in partic. invasion of the extracellular matrix (ECM).

CC The peptides are also soluble.

SQ Sequence 6 AA;

Query Match 97.6%; Score 40; DB 19; Length 6;
Best Local Similarity 83.3%; Pred. No. 9.04e+01;
Matches 5; Conservative 1; Mismatches 0; Indels 0; Gaps 0;

Db 1 grgsp 6
|||:|

QY 1 GRGDSP 6

RESULT 66

ID W34090 standard; peptide; 6 AA.

AC W34090;

DE 05-MAY-1998 (first entry)

DE Peptide SEQ ID NO:2 from W09739773 Example 1.

KW Beta-1 cell surface receptor; beta-1 integrin-binding domain;

KW cancer; tenascin; inflammation; receptor stimulator; fibrin;
 KW inhibitor; leucocyte migration.
 OS Unidentified.
 PN WO9739773-A1.
 PD 30-OCT-1997.
 PF 22-APR-1997; U06577.
 PR 22-APR-1996; US-635572.
 PA (UYCO) UNIV COLUMBIA NEW YORK.
 PI Lolke J, Silverstein SC;
 DR WPI; 97-535582/49.
 PT Treating infection caused by in-dwelling devices - also similar
 PT methods for treating cancers coated with tenascin and treating
 PT inflammation with receptor stimulators
 PS Example 1; Page 27; 9pp; English.
 CC A novel method has been developed for treating infection caused by
 CC bacteria on the surface of an in-dwelling foreign body, over and
 CC around which fibrin has been deposited. The method comprises
 CC administration of an agent that inhibits signalling mediated by a
 CC beta 1-integrin cell surface receptor on leucocytes. The agent enhances
 CC migration of leucocytes in and through the fibrin so that they can
 CC reach and kill the bacteria. The present sequence represents a
 CC peptide which is mentioned but not used in the present invention.
 CC Treatment with the agent overcomes the inhibitory effects of
 CC fibrin or tenascin on leucocyte migration.
 SQ Sequence 6 AA;

Query Match 97.6%; Score 40; DB 28; Length 6;
 Best Local Similarity 83.3%; Pred. No. 9.04e+01;
 Matches 5; Conservative 1; Mismatches 0; Indels 0; Gaps 0;

Db 1 grgesp 6
 |||:|
 QY 1 GRGDSP 6

RESULT 67
 ID R71457 standard; peptide; 6 AA.
 AC R71457;
 DT 20-OCT-1995 (first entry)
 DE Control hexapeptide to measure transmembrane force transfer.
 KW fibronectin; cytoskeleton; transmembrane force transfer; diagnostic;
 KW characterise cell; mechanical stimulation; ferromagnetic bead.
 OS Synthetic.
 PN WO9506248-A.
 PD 02-MAR-1995.
 PF 25-AUG-1994; U09685.
 PR 25-AUG-1993; US-112757.
 PA (CHIL-) CHILDRENS MEDICAL CENT.
 PI (HARD) HARVARD COLLEGE.
 PI Butler JP, Fredberg JJ, Ingber DE, Wang N;
 DR WPI; 95-106940/14.
 PT System for applying mechanical loads to specific cell surface
 PT molecules - using ferromagnetic beads coated with attachment
 PT molecules, and alignment and twisting magnetic fields, e.g. for
 PT screening therapeutic agents, toxins etc.
 PS Example 1; Page 19; 42pp; English.
 CC The system of the invention is used to determine the effect of
 CC mechanical stimulation of mols. present on a cell surface.
 CC Ferromagnetic microbeads are coated with attachment mols. eg. matrix
 CC proteins. A strong external magnetic field is applied to the beads, to
 CC impose a defined mechanical stress. Transmembrane force transfer is
 CC measured and the cells observed for changes in stiffening and twisting.
 CC To demonstrate the specificity of transmembrane force transfer in
 CC living endothelial cells, a soluble synthetic peptide (R71456) was
 CC included in the culture medium as a competitor. The fibronectin
 CC peptide inhibited cytoskeletal stiffening whereas this control
 CC hexapeptide with a single amino acid substitution had no
 CC inhibitory effects.
 SQ Sequence 6 AA;

Query Match 97.6%; Score 40; DB 13; Length 6;
 Best Local Similarity 83.3%; Pred. No. 9.04e+01;

Db 1 grgesp 6
 |||:|
 QY 1 GRGDSP 6

Query Match 95.1%; Score 39; DB 19; Length 6;
 Best Local Similarity 83.3%; Pred. No. 1.23e+02;
 Matches 5; Conservative 1; Mismatches 0; Indels 0; Gaps 0;

Db 1 grgdtp 6
 |||:|
 QY 1 GRGDSP 6

RESULT 69
 ID W84459 standard; Peptide; 6 AA.
 AC W84459;
 DT 25-MAR-1999 (first entry)
 DE RGD peptide that stimulates cell invasion by S. pyogenes 90-226.
 KW Streptococcus pyogenes 90-226; pathogen; inhibition;
 KW cell adhesion; cell invasion; treatment; bacterial infection;
 KW fungal infection.
 OS Synthetic.
 PN WO9856408-A2.
 PD 17-DEC-1998.
 PF 10-JUN-1998; U12019.
 PR 10-JUN-1997; US-049124.
 PA (MINU) UNIV MINNESOTA.
 PI Cleary PP, Cue DR;
 DR WPI; 99-080856/07.
 PT Method for treating mammal infected by pathogenic microorganism -
 PT comprises administering to mammal composition comprising inhibitory
 PT compound which inhibits adherence to or invasion of a cell by
 PT microorganism

Matches 5; Conservative 1; Mismatches 0; Indels 0; Gaps 0;

Db 1 grgesp 6
 |||:|
 QY 1 GRGDSP 6

RESULT 68
 ID W07430 standard; peptide; 6 AA.
 AC W07430;
 DT 21-JAN-1997 (first entry)
 DE Synthetic, preferred tumour invasion-inhibitory peptide.
 KW tumour invasion; extracellular matrix; ECM; metastasis; RGD sequence;
 KW cancer; inhibition; control.
 OS Synthetic.
 PN US5547936-A.
 PD 20-AUG-1996.
 PF 22-NOV-1983; 554821.
 PR 22-NOV-1983; US-554821.
 PR 17-JUN-1985; US-744981.
 PR 10-MAR-1988; US-166530.
 PR 09-SEP-1988; US-242713.
 PR 25-FEB-1991; US-660526.
 PR 10-APR-1991; US-683585.
 PR 08-OCT-1991; US-773106.
 PR 19-JUN-1992; US-902742.
 PR 17-DEC-1993; US-169743.
 PA (LJOL-) LA JOLLA CANCER RES FOUND.
 PI Gehlsen KR, Pierschbacher MD, Ruoslahti EI;
 DR WPI; 96-332651/39.
 PT Inhibiting tumour cell invasion through an extracellular matrix -
 PT using peptide contg. the RGD sequence, partic. for preventing tumour
 PT metastasis
 PS Claim 2; Column 7-8; 8pp; English.
 CC W07430 is a preferred peptide identified in an assay for testing
 CC peptides for tumour-invasion inhibitory activity. The peptides
 CC (contg. the RGD sequence) shows significant inhibition of tumour
 CC invasion of the ECM. Other peptides tested (see W07431-W06433) did
 CC show inhibitory activity but to a lesser extent than peptide W07430
 CC The peptides identified can be used to treat cancer and to prevent
 CC metastasis, in partic. invasion of the extracellular matrix (ECM).
 CC The peptides are soluble.
 SQ Sequence 6 AA;

PS Example 2; Page 43; 88pp; English.
 CC The present sequence represents a RGD peptide that is able to
 CC stimulate cell invasion by Streptococcus pyogenes 90-226. The
 CC peptides were used in the course of the invention. The
 CC specification describes the treatment of a mammal infected
 CC by a pathogenic microorganism which comprises administering an
 CC inhibitory compound to inhibit adherence to or invasion of cells
 CC by the pathogen. The method is used in the treatment of bacterial
 CC or fungal infection.
 SQ Sequence 6 AA;

Query Match 95.1%; Score 39; DB 39; Length 6;
 Best Local Similarity 83.3%; Pred. No. 1.23e+02;
 Matches 5; Conservative 1; Mismatches 0; Indels 0; Gaps 0;

Db 1 grgdtsp 6
 |||||
 QY 1 GRGDSP 6

RESULT 70
 ID R47384 standard; Protein; 6 AA.
 AC R47384.
 DT 22-JUN-1994 (first entry)
 DE PH-30 beta disintegrin control peptide.
 KW PH-20; PH-30; contraceptive; fertilisation; sperm surface protein;
 KW vaccine; sperm-egg fusion.
 OS Rubella virus.
 PN WO9325233-A.
 PD 23-DEC-1993.
 PF 10-JUN-1993; U05640.
 PR 12-JUN-1992; US-897883.
 PA (UYCO-) UNIV CONNECTICUT.
 PI Myles DG, Primakoff P;
 DR WPI: 94-007200/01.
 PT Contraceptive vaccine for reducing sperm-egg fusion - comprises
 PT peptide from sperm surface protein which stimulates antibody
 PT prodn.
 PS Example 7; Page 27; 79pp; English.
 CC Example 7 describes the use of PH-30 beta disintegrin peptides
 CC as inhibitors of sperm fusion to egg plasma membrane.
 CC Modified peptides R47382-83 and control peptides (R47384-85)
 CC were tested. From observations it was concluded that the
 CC PH-30 beta disintegrin domain represents an epitope which
 CC is critical in sperm-egg fusion.
 SQ Sequence 6 AA;

Query Match 95.1%; Score 39; DB 8; Length 6;
 Best Local Similarity 83.3%; Pred. No. 1.23e+02;
 Matches 5; Conservative 1; Mismatches 0; Indels 0; Gaps 0;

Db 1 grgdtsp 6
 |||||
 QY 1 GRGDSP 6

RESULT 71
 ID R94571 standard; Peptide; 6 AA.
 AC R94571.
 DT 21-JUN-1996 (first entry)
 DE RGD peptide.
 KW Cytotactin; neuron; neurite; cell attachment; cell elongation;
 KW antibody.
 OS Synthetic.
 PN WO9608513-A1.
 PD 21-MAR-1996.
 PF 14-SEP-1995; U11684.
 PR 16-SEP-1994; US-308359.
 PA (SCRI) SCRIPPS RES INST.
 PI Crossin KL, Phillips G, Prieto AL;
 DR WPI: 96-179904/18.
 PT Cytotactin polypeptide(s), derivs. and antibodies - capable of
 PT stimulating neuronal cell attachment, neurite out-growth and cell

PT elongation
 PS Example 5; Page 81; 159pp; English.
 CC RGD peptides (R94570 and R94571), inhibitors of cell attachment to
 CC type I collagen, inhibited attachment of chicken fibroblasts to
 CC cytactin (see also R94547-48) by 73% and 70% respectively.
 CC inhibition was total when the peptides were used together with JG22,
 CC a function-blocking monoclonal antibody against the beta-1 integrin.
 CC This suggests that there are 2 integrin binding sites on cytactin.
 SQ Sequence 6 AA;

Query Match 95.1%; Score 39; DB 16; Length 6;
 Best Local Similarity 83.3%; Pred. No. 1.23e+02;
 Matches 5; Conservative 1; Mismatches 0; Indels 0; Gaps 0;

Db 1 grgdtsp 6
 |||||
 QY 1 GRGDSP 6

RESULT 72
 ID R36709 standard; peptide; 6 AA.
 AC R36709.
 DT 26-AUG-1993 (first entry)
 DE Adhesion formation prevention RGD-contg. peptide.
 KW Tissue repair; peritoneum; surgery; post-surgically; inhibition;
 KW platelet aggregation; cardiovascular; orthopedic; thoracic;
 KW ophthalmic; CNS; use.
 OS Synthetic.
 PN WO9308818-A.
 PD 13-MAY-1993.
 PF 06-NOV-1992; U09494.
 PR 07-NOV-1991; US-789231.
 PA (UYSC-) UNIV SOUTHERN CALIFORNIA.
 PI Dizerega GS, Rodgers KE;
 DR WPI: 93-167381/20.
 PT Prevention of adhesion formation, partic. post-surgically - comprises
 PT administering a RGD-contg. peptide for a time sufficient to permit
 PT tissue repair
 PS Example; Page 18; 22pp; English.
 CC The sequence is that of an RGD-contg. peptide which is used in a
 CC method for prevention of adhesion formation for a time sufficient
 CC to permit tissue repair. The method is used for minimising or
 CC preventing adhesion formation, partic. in the peritoneum following
 CC surgery, but also for e.g. cardiovascular, orthopedic, thoracic,
 CC ophthalmic, CNS and other uses. In addn., the peptide inhibits
 CC platelet aggregation and does not induce inflammation or trauma
 CC at the site of administration.
 SQ Sequence 6 AA;

Query Match 95.1%; Score 39; DB 7; Length 6;
 Best Local Similarity 83.3%; Pred. No. 1.23e+02;
 Matches 5; Conservative 1; Mismatches 0; Indels 0; Gaps 0;

Db 1 grgdtsp 6
 |||||
 QY 1 GRGDSP 6

RESULT 73
 ID R11506 standard; Protein; 6 AA.
 AC R11506.
 DT 12-JUN-1991 (first entry)
 DE Cell attachment promoting peptide.
 KW Fibrin; aggregation.
 OS Synthetic.
 FH Key Location/Qualifiers
 FT active_site 2..4
 PN US4988621-A.
 PD 29-JAN-1991.
 PF 10-DEC-1987; 131130.
 PR 24-MAY-1985; US-738078.
 PR 10-DEC-1987; US-131130.
 PA (JOLL-) LA JOLLA CANCER FOU.

PI Ruoslahti EI, Hayman EG, Pierschbacher MD;
 DR WPI; 91-116404/16.
 PT peptide(s) contg. arginine-glycine-aspartic acid sequence - used
 PT to prevent and reverse cell attachment or to promote cell
 PT aggregation.
 PS Disclosure; Page 8; 12pp; English.
 CC The peptide, or shorter versions contg. the RGD active site from
 CC fibronectin, can be used to prevent and reverse attachment of cells
 CC to substrates. This can be used in cell prodn., fermentation, cell
 CC line prepn., cell matrix prodn., diagnostics and therapy. The
 CC peptide can be used for eg mobilisation of bone marrow cells;
 CC prevention and reversal of attachment of disseminated tumour cells
 CC locally such as in the case of an operation performed in the peri-
 CC toneal cavity, to prevent adhesions and scar formations locally as
 CC in the case of eye operations, for prophylactic inhibition of E. coli
 CC binding to epithelial cells of the urinary tract or intestine,
 CC diagnosis and treatment of E. coli related infections, and
 CC identification of various pathogenic bacterial strains. The
 CC peptide is pref. prepd. by solid phase synthesis.
 CC See also R11505
 CC Sequence 6 AA;
 SQ

Query Match 95.1%; Score 39; DB 2; Length 6;
 Best Local Similarity 83.3%; Pred. No. 1.23e+02;
 Matches 5; Conservative 1; Mismatches 0; Indels 0; Gaps 0;

Db 1 grgdap 6
 |||||
 QY 1 GRGDSP 6

RESULT 74
 ID R04871 standard; peptide; 6 AA.
 AC R04871;
 DT 25-SEP-1989 (first entry)
 DE Peptide from fibronectin
 KW Fibronectin; cell attachment; cell detachment; fermentation; therapy.
 OS Synthetic
 PN US4879237-A.
 PD 07-NOV-1989.
 PF 24-MAY-1985; 738078.
 PR 24-MAY-1989; US-738078.
 PA (JOLI-) La Jolla Cancer Res.
 PI Ruoslahti EI, Hayman EG, Pierschbacher MD;
 DR WPI; 90-154405/20.
 PT Synthetic peptide(s) from fibronectin- used in control of cell attachment
 PT and detachment
 PS Claim 1; page 10; 13pp; English.
 CC This polypeptide mediates the attachment of animal cells to substrates.
 CC The substrate (I) is contacted with cells and with a soln. contg. this
 CC polypeptide. This attachment can be prevented in addition to detaching
 CC the cells from (I) once attached. Applications are in eg fermentation,
 CC cell line prepn., diagnosis and therapy.
 CC Sequence 6 AA;
 SQ

Query Match 95.1%; Score 39; DB 1; Length 6;
 Best Local Similarity 83.3%; Pred. No. 1.23e+02;
 Matches 5; Conservative 1; Mismatches 0; Indels 0; Gaps 0;

Db 1 grgdap 6
 |||||
 QY 1 GRGDSP 6

RESULT 75
 ID W25181 standard; peptide; 6 AA.
 AC W25181;
 DT 03-JAN-1998 (first entry)
 DE RGD-peptide capable of binding cell adhesion molecules.
 KW RGD; arginine; glycine; aspartic acid; cell adhesion molecule;
 KW binding; bladder irrigation; tumour removal; endoscopic operation;
 KW transurethral resection; cancer; neoplasia.
 OS Synthetic.

PN DE19529909-A1.
 PD 20-FEB-1997.
 PF 15-AUG-1995; 029909.
 PR 15-AUG-1995; DE-029909.
 PA (FREP) FRESNIUS AG.
 PI Boehle A;
 DR WPI; 97-133793/13.
 PT Endoscopic irrigation solns. - contg. peptide(s) that bind to cell
 PT adhesion molecules
 PT adhesion molecules
 PS Claim 5; Page 8; 8pp; German.
 CC W25173-W25186 are peptides containing an RGD sequence or equivalent.
 CC The peptides are capable of binding to cell adhesion molecules and
 CC are used in aqueous irrigation solutions for use during and after
 CC endoscopic operations. Preferred irrigation solutions are
 CC electrolyte-free and contain 1 microg/ml to 100 mg/ml of one or more
 CC oligopeptides containing the amino acid sequences: RGD, LDV, IDA, DGEA,
 CC GPRP, VTL, YIGSR, KOAGDV and/or RENV (given in one letter amino acid
 CC code). The solutions are especially used for irrigating the bladder
 CC during and after tumour removal by transurethral resection. The
 CC peptides protect against recurrence of tumours.
 CC Sequence 6 AA;
 SQ

Query Match 92.7%; Score 38; DB 24; Length 6;
 Best Local Similarity 83.3%; Pred. No. 1.68e+02;
 Matches 5; Conservative 1; Mismatches 0; Indels 0; Gaps 0;

Db 1 grgdnp 6
 |||||
 QY 1 GRGDSP 6

RESULT 76
 ID W07432 standard; peptide; 6 AA.
 AC W07432;
 DT 21-JAN-1997 (first entry)
 DE Synthetic, weak, tumour invasion-inhibitory peptide.
 KW Tumour invasion; extracellular matrix; ECM; metastasis; RGD sequence;
 KW cancer; inhibition; control.
 OS Synthetic.
 PN US547936-A.
 PD 20-AUG-1996.
 PF 22-NOV-1983; 554821.
 PR 22-NOV-1983; US-554821.
 PR 17-JUN-1985; US-744981.
 PR 10-MAR-1988; US-166530.
 PR 09-SEP-1988; US-242713.
 PR 25-FEB-1991; US-660526.
 PR 10-APR-1991; US-683585.
 PR 08-OCT-1991; US-773106.
 PR 19-JUN-1992; US-902742.
 PR 17-DEC-1993; US-169743.
 PA (JOLI-) LA JOLLA CANCER RES FOUND.
 PI Gehlsen KR, Pierschbacher MD, Ruoslahti EI;
 DR WPI; 96-392651/39.
 PT Inhibiting tumour cell invasion through an extracellular matrix -
 PT using peptide contg. the RGD sequence, partic. for preventing tumour
 PT metastasis
 PS Example 1; Column 7-8; 8pp; English.
 CC W07431-W07433 are peptides identified in an assay for tumour-invasion
 CC inhibitory activity. The peptides (contg. the RGD sequence) show a
 CC weak inhibition of tumour invasion of the ECM. Another peptide tested
 CC (see W07430) showed a significant inhibitory activity. The peptides
 CC identified can be used to treat cancer and to prevent metastasis, in
 CC partic. invasion of the extracellular matrix (ECM).
 CC The peptides are soluble.
 CC Sequence 6 AA;
 SQ

Query Match 92.7%; Score 38; DB 19; Length 6;
 Best Local Similarity 83.3%; Pred. No. 1.68e+02;
 Matches 5; Conservative 1; Mismatches 0; Indels 0; Gaps 0;

Db 1 grgdnp 6
 |||||

QY 1 GRGDSP 6

RESULT 77

ID R36711 standard; peptide; 6 AA.
 AC R36711; 1993 (first entry)
 DE Adhesion formation prevention RGD-contg. peptide.
 DT Tissue repair; peritoneum; surgery; post-surgically; inhibition;
 KW platelet aggregation; cardiovascular; orthopedic; thoracic;
 KW ophthalmic; CNS; use.
 OS Synthetic.
 PN W09308818-A.
 PD 13-MAY-1993.
 PF 06-NOV-1992; U09494.
 PR 07-NOV-1991; US-789231.
 PA (UYSC-) UNIV SOUTHERN CALIFORNIA.
 PI Dizerega GS, Rodgers RE;
 DR WPI; 93-167381/20.
 PT Prevention of adhesion formation, partic. post-surgically - comprises
 PT administering a RGD-contg. peptide for a time sufficient to permit
 PT tissue repair
 PT Example; Page 18; 22pp; English.
 PS The sequence is that of an RGD-contg. peptide which is used in a
 CC method for prevention of adhesion formation for a time sufficient
 CC to permit tissue repair. The method is used for minimising or
 CC preventing adhesion formation, partic. in the peritoneum following
 CC surgery, but also for e.g. cardiovascular, orthopedic, thoracic,
 CC ophthalmic, CNS and other uses. In addn., the peptide inhibits
 CC platelet aggregation and does not induce inflammation or trauma
 CC at the site of administration.
 SQ Sequence 6 AA;

Query Match 92.7%; Score 38; DB 7; Length 6;

Best Local Similarity 83.3%; Pred. No. 1.68e+02;
 Matches 5; Conservative 1; Mismatches 0; Indels 0; Gaps 0;

Db 1 grgdnp 6

QY 1 GRGDSP 6

RESULT 78

ID R70474 standard; peptide; 5 AA.
 AC R70474;
 DT 20-DEC-1995 (first entry)
 DE Cancer metastasis inhibitory RGD peptide derivative #2.
 KW Cancer metastasis; adhesive peptide; core sequence; dextran; cancer;
 KW water soluble polysaccharide; metastasis; wound; immunogenicity.
 OS Synthetic.
 PN J07089999-A.
 PD 04-APR-1995.
 PF 17-SEP-1993; 254779.
 PR 17-SEP-1993; JP-254779.
 PA (JAPG) NIPPON ZEON KK.
 DR WPI; 95-167254/22.
 PT Cancer metastasis inhibitive peptide derivs. - useful for inhibition
 PT of cancer metastasis, healing of wounds and regulation of
 PT immunogenicity.
 PS Disclosure; Page 2; 6pp; Japanese.
 CC The peptides R70472-90 and R82907-24 are peptide derivatives which
 CC inhibit cancer metastasis. They are composed of an adhesive peptide with
 CC a core sequence selected from: RGD (R70472-85), YIGSR (R70486-90) or
 CC other sequence (R82907-24), linked to a water soluble polysaccharide,
 CC preferably a water soluble dextran, at the C-terminus. The peptides are
 CC useful in inhibiting cancer metastasis, healing wounds and the regulation
 CC of immunogenicity.
 SQ Sequence 5 AA;

Query Match 82.9%; Score 34; DB 14; Length 5;

Best Local Similarity 100.0%; Pred. No. 5.63e+02;
 Matches 5; Conservative 0; Mismatches 0; Indels 0; Gaps 0;

Db 1 rgdsp 5

QY 2 RGDSP 6

RESULT 79

ID R26813 standard; peptide; 5 AA.
 AC R26813;
 DT 18-FEB-1993 (first entry)
 DE Polyethylene glycol derivative #4.
 KW triazine ring; methoxy-polyethyleneoxy group; fibronectin; vitronectin;
 KW platelet adhesion; metastasis; neuropathy.
 OS Synthetic.
 PN J04217693-A.
 PD 07-AUG-1992.
 PF 30-NOV-1990; 333717.
 PR 23-OCT-1990; JP-285172.
 PA (FUJF) FUJII PHOTO FILM CO LTD.
 DR WPI; 92-312284/38.
 PT Polyethylene glycol derivs. contg. peptide(s) - inhibit cellular
 PT adhesion for fibronectin or vitronectin and are used to inhibit
 PT agglutination or adhesion of platelets
 PS Disclosure; Page 4; 9pp; Japanese.
 CC The sequences given in R26810-14 are examples of a peptide chain
 CC which is attached once or twice to a triazine ring which is also
 CC substituted twice or once, respectively, with a methoxy-polyethyleneoxy
 CC group. These peptides can be used to inhibit cellular adhesion to
 CC fibronectin or vitronectin and they are useful as inhibitors for
 CC agglutination or adhesion of platelets. They can also be useful as
 CC inhibitors for metastasis of cancers, inhibitors of agglutination of
 CC platelets caused by tumour cells in the blood capillaries, and drugs
 CC acting on neuropathy.
 SQ Sequence 5 AA;

Query Match 82.9%; Score 34; DB 5; Length 5;

Best Local Similarity 100.0%; Pred. No. 5.63e+02;
 Matches 5; Conservative 0; Mismatches 0; Indels 0; Gaps 0;

Db 1 rgdsp 5

QY 2 RGDSP 6

RESULT 80

ID R70655 standard; peptide; 5 AA.
 AC R70655;
 DT 26-JUN-1995 (first entry)
 DE Synthetic RGD peptide inhibits intercellular adhesion by fibronectin.
 KW RGD peptide; competitor; fibronectin; inhibition; RGD-lipid derivative;
 KW intercellular adhesion; suppress transfer of cancer cell; liposome.
 OS Synthetic.
 FH Key Location/Qualifiers
 FT modified_site 1 /note= "H-Arg"
 FT modified_site 5..5 /note= "Pro-NH-(CH2CH2O)3-n-Cl8H37-2HCl"
 FT J06219967-A.
 PN 09-AUG-1994.
 PD 22-JAN-1993; 009290.
 PR (DDSK-) DDS KENKUSHO KK.
 PA WPI; 94-312661/39.
 DR New peptide-lipid derivs. bound directly or via linker to lipid -
 PT useful for inhibiting mouse lung cancer cell line, 3LL cell
 PT adhesion by fibronectin
 PS Example; Page 4; 12pp; Japanese.
 CC R70651-56 are RGD contg. peptides that can bind to cancer cells. The
 CC exogenous peptides compete with fibronectin and inhibit
 CC intercellular adhesion by fibronectin. The peptides are bound
 CC directly or via a linker to a lipid. A liposome suspension contg.
 CC RGD peptide was found to effectively suppress 3LL cell adhesion by
 CC fibronectin, in the mouse lung cancer cell line.
 SQ Sequence 5 AA;

Query Match 82.9%; Score 34; DB 12; Length 5;
 Best Local Similarity 100.0%; Pred. No. 5.63e+02;
 Matches 5; Conservative 0; Mismatches 0; Indels 0; Gaps 0;

Db 1 rgdsp 5
 |||||
 QY 2 RGDSP 6

RESULT 81
 ID R70475 standard; peptide; 6 AA.
 AC R70475;
 DT 20-DEC-1995 (first entry)
 DE Cancer metastasis inhibitory RGD peptide derivative #3.
 KW Cancer metastasis; adhesive peptide; core sequence; dextran; cancer;
 KW water soluble polysaccharide; metastasis; wound; immunogenicity.
 OS Synthetic.
 PN J07089999-A.
 PD 04-APR-1995.
 PF 17-SEP-1993; 254779.
 PR 17-SEP-1993; JP-254779.
 FA (JAPG) NIPPON ZEON KK.
 DR WPI; 95-167254/22.
 PT Cancer metastasis inhibitive peptide derivs. - useful for inhibition
 PT of cancer metastasis, healing of wounds and regulation of
 PT immunogenicity.
 PS Disclosure; Page 2; 6pp; Japanese.
 CC The peptides R70472-90 and R82907-24 are peptide derivatives which
 CC inhibit cancer metastasis. They are composed of an adhesive peptide with
 CC a core sequence selected from: RGD (R70472-85), YIGSR (R70486-90) or
 CC other sequence (R82907-24), linked to a water soluble polysaccharide,
 CC preferably a water soluble dextran, at the C-terminus. The peptides are
 CC useful in inhibiting cancer metastasis, healing wounds and the regulation
 CC of immunogenicity.
 SQ Sequence 6 AA;

Query Match 82.9%; Score 34; DB 14; Length 6;
 Best Local Similarity 100.0%; Pred. No. 5.63e+02;
 Matches 5; Conservative 0; Mismatches 0; Indels 0; Gaps 0;

Db 1 rgdsp 5
 |||||
 QY 2 RGDSP 6

RESULT 82
 ID W48518 standard; peptide; 6 AA.
 AC W48518;
 DT 18-AUG-1998 (first entry)
 DE Integrin receptor antagonist peptide 57.
 KW Integrin receptor antagonist; cell adhesion modulator; leukocyte;
 KW extracellular matrix; fibronectin; ARDS; thrombosis; inflammation.
 OS Synthetic.
 FH Key Location/Qualifiers
 FT Modified_site 1..6
 FT /note= "Amide linkage between alpha amino group of
 FT Arg and side chain carboxyl group of Glu"
 FT Modified_site 6
 FT /note= "C-terminal amide"
 PN US5721210-A.
 PD 24-FEB-1998.
 PF 07-JUN-1995; 485019.
 PR 04-JUN-1993; US-961889.
 PR 09-JUL-1990; US-550330.
 PR 09-JUL-1991; WO-U04862.
 PR 07-JUN-1995; US-485019.
 FA (TANA) TANABE SEIYAKU CO.
 PI Cardarelli PN, Chiang S, Lobl TJ;
 DR WPI; 98-168442/15.
 PT New cyclic peptide(s) and peptidomimetic compounds - are integrin
 PT receptor antagonists useful in modulating cell adhesion.
 PS Example 9; Column 42; 32pp; English.

The present sequence represents a synthetic peptide which acts as an antagonist to integrin receptors. The invention provides various synthetic peptides which act as cell adhesion modulators because they mimic extra-cellular matrix ligands or other cell adhesion ligands that bind to receptors such as integrin receptors, including fibronectin, laminin, LFA-1, MAC-1, p150.95, vitronectin and gp1b/IIIa receptors. Some of the peptides contain the amino acid sequence Arg-Gly-Asp (RGD). Others contain non-RGD sequences, for e.g RGD sequences, and reverse orientation forms of amino acid residues. The synthetic peptides are useful in modulating cell adhesion, including adhesion related to fibronectin, as well as leukocyte adhesion to endothelial cells. They are also claimed to be useful in the study, diagnosis, treatment or prevention of diseases which relate to cell adhesion, e.g. adult respiratory distress syndrome (ARDS), thrombosis and inflammatory conditions.

SQ Sequence 6 AA;

Query Match 82.9%; Score 34; DB 31; Length 6;
 Best Local Similarity 100.0%; Pred. No. 5.63e+02;
 Matches 5; Conservative 0; Mismatches 0; Indels 0; Gaps 0;

Db 1 rgdsp 5
 |||||
 QY 2 RGDSP 6

RESULT 83
 ID W68568 standard; peptide; 6 AA.
 AC W68568;
 DT 25-JAN-1999 (first entry)
 DE Conformationally constrained RGD peptide #5.
 KW Cell adhesion motif; RGD motif; affinity; receptor; stereochemistry;
 KW conformation; cyclisation; medical device; prosthesis; implant;
 KW cell attachment.
 OS Synthetic.
 PN US5827821-A.
 PD 27-OCT-1998.
 PF 16-JUL-1992; 914643.
 PR 29-DEC-1988; US-292517.
 PR 10-DEC-1987; US-131390.
 PR 15-OCT-1991; US-776839.
 PR 16-JUL-1992; US-914643.
 PA (BURN-) BURNHAM INST.
 PI Pierschbacher MD, Ruoslahti EI;
 DR WPI; 98-594031/30.
 PT New synthetic peptides - used for in vivo applications such as
 PT coating of medical devices, including prosthesis and implants, to
 PT aid the attachment of cells
 PS Disclosure; Column 5; 11pp; English.
 CC This is an example of a novel type of peptide containing the cell
 CC adhesion motif Arg-Gly-Asp (RGD) of formula: X-R1-R2-Arg-Gly-Asp-R3-R4-Y,
 CC where R2 = 0-5 amino acids; R3 = 0-5 amino acids; R1, R4 = amino acids
 CC connected by a bridge: X = H or one or more amino acids; and Y = OH, NH2
 CC or one or more amino acids. Preferably the novel peptides have 5-30 amino
 CC acid residues. The peptides have high affinity and specificity for their
 CC receptors by virtue of restrictions on their stereochemical conformation,
 CC restrictions which are provided by cyclisation. The peptides have various
 CC applications relating to their cell-adhesion properties e.g. as coatings
 CC of medical devices, including prosthesis and implants, to aid the
 CC attachment of cells. The peptides also have in vitro uses in coating of
 CC substrates, such as cell culture substrates, to promote cell adhesion.

SQ Sequence 6 AA;

Query Match 82.9%; Score 34; DB 37; Length 6;
 Best Local Similarity 100.0%; Pred. No. 5.63e+02;
 Matches 5; Conservative 0; Mismatches 0; Indels 0; Gaps 0;

Db 2 rgdsp 6
 |||||
 QY 2 RGDSP 6

RESULT 84

ID W66827 standard; peptide; 6 AA.
 AC W66827;
 DT 10-DEC-1998 (first entry)
 DE Peptide useful for altering bone resorption.
 KW bone resorption; pharmacore; angiogenesis; restenosis; integrin receptor;
 KW alpha v beta 3 integrin receptor; osteoclast; cyclic.
 OS Synthetic.
 FH Key Location/Qualifiers
 FT Modified_site 6
 FT /note= "C-terminal amide"
 FT
 PN US5807819-A.
 PD 15-SEP-1998.
 PD 12-APR-1998.
 PD 12-APR-1998; 421698.
 PR 12-APR-1995; US-421698.
 PR 15-APR-1994; US-227316.
 PR 08-SEP-1994; US-303052.
 PA (LJOL-) LA JOLLA CANCER RES CENT.
 PI Cheng S, Ingram R, Mullen D, Tschopp JF;
 DR WPI; 98-555601/47;
 FT Use of peptide derivatives which can alter integrin receptor binding
 FT - for altering bone resorption, treating angiogenesis or restenosis
 FT and altering integrin receptor mediated interactions
 PS Example 2; Figure 2b; 87pp; English.
 CC A new method is claimed for altering bone resorption. It comprises
 CC administration of a peptide of formula: $X_1X_2X_3X_4X_5X_6X_7X_8$; where X_1 -
 CC R1R2N or 0-10 amino acids (optionally protected by acetylation at the N-
 CC terminus); X_2 - absent or 1 amino acid; X_3 - absent or 1 or 2 amino
 CC acids; X_4 - N-Me-Arg; X_5 - residue which provides an ionic interaction
 CC with an integrin receptor, or is Msa, Psa or Ifsa; X_6 - residue which
 CC has an aliphatic side chain; a non-natural amino acid that is
 CC hydrophobic; or Thr; X_7 - a residue capable of forming a bond (i) with a
 CC bridging amino acid of X_2 , (ii) with X_3 when X_2 is absent, or (iii) with
 CC X_4 when X_2 and X_3 are absent, to conformationally restrain the peptide;
 CC X_8 - NR3R4; OR5; or 0-10 amino acids, optionally protected as an amide at
 CC the C-terminus; R1, R3-R5 - H or alkyl; R2 - H, alkyl, alkyl-CO or
 CC phenyl-CO. The peptides are useful for inhibiting bone resorption,
 CC angiogenesis or restenosis, and for altering integrin receptor-mediated
 CC interactions, especially alpha v beta 3 integrin receptor-mediated
 CC binding of cells to a matrix. They may be used for reducing or inhibiting
 CC osteoclast binding to a matrix. The present sequence represents an
 CC example of a circular peptide disclosed in the specification.
 SQ Sequence 6 AA;
 Query Match 82.9%; Score 34; DB 36; Length 6;
 Best Local Similarity 100.0%; Pred. No. 5.63e+02;
 Matches 5; Conservative 0; Mismatches 0; Indels 0; Gaps 0;
 Db 1 rgdsp 5
 Qy 2 RGDSP 6
 RESULT 85
 ID R25075 standard; peptide; 6 AA.
 AC R25075;
 DT 17-FEB-1993 (first entry)
 DE Gelatin deriv. peptide contg. RGD motif.
 KW Adhesive peptide; cell adhesion; inhibitor; platelet aggregation.
 OS Synthetic.
 FH Key Location/Qualifiers
 FT Modified_site 1
 FT /note= "alkylated/arylated"
 FT modified_site 6
 FT /note= "alkylated/arylated"
 FT
 PN J04221400-A.
 PD 11-AUG-1992.
 PD 30-NOV-1990; 333719.
 PR 26-OCT-1990; JP-289492.
 PA (FUJF) FUJI PHOTO FILM CO LTD.
 DR WPI; 92-313683/38.
 PT Gelatin deriv. with adhesive peptide side chain - used for animal
 PT cell adhesion inhibitor and platelet aggregation-adhesion inhibitor
 PS Example; Page 13; 10pp; Japanese.

CC The gelatin deriv. contains the Arg-Gly-Asp motif of cell adhering
 CC proteins. It comprises the essential unit of a water-sol. vinyl
 CC polymer with a pref. mol. wt. of 3000-100,000 D. The polymer shows
 CC various biological activities, e.g. immunological coordination, wound
 CC healing action and platelet aggregation inhibiting action etc.
 CC See also R29069-74.
 SQ Sequence 6 AA;
 Query Match 82.9%; Score 34; DB 5; Length 6;
 Best Local Similarity 100.0%; Pred. No. 5.63e+02;
 Matches 5; Conservative 0; Mismatches 0; Indels 0; Gaps 0;
 Db 2 rgdsp 6
 Qy 2 RGDSP 6
 RESULT 86
 ID W48577 standard; peptide; 6 AA.
 AC W48577;
 DT 18-AUG-1998 (first entry)
 DE Integrin receptor antagonist peptide 116.
 KW Integrin receptor antagonist; cell adhesion modulator; leukocyte;
 KW extracellular matrix; fibronectin; ARDS; thrombosis; inflammation.
 OS Synthetic.
 FH Key Location/Qualifiers
 FT Modified_site 1.6
 FT /note= "Amide linkage between the alpha amino group
 FT of Arg and the side chain carboxyl group of Asp"
 FT Modified_site 6 /note= "C-terminal amide"
 FT
 PN US5721210-A.
 PD 24-FEB-1998.
 PD 07-JUN-1995; 485019.
 PR 04-JUN-1993; US-961889.
 PR 09-JUL-1990; US-550330.
 PR 09-JUL-1991; WO-004862.
 PR 07-JUN-1995; US-485019.
 PA (TANA) TANABE SEIYAKU CO.
 PI Cardarelli PM, Chiang S, Lobl TJ;
 DR WPI; 98-168442/15.
 PT New cyclic peptide(s) and peptidomimetic compounds - are integrin
 PT receptor antagonists useful in modulating cell adhesion.
 PS Example 9; Column 44; 32pp; English.
 CC The present sequence represents a synthetic peptide which
 CC acts as an antagonist to integrin receptors. The invention provides
 CC various synthetic peptides which act as cell adhesion modulators because
 CC they mimic extra-cellular matrix ligands or other cell adhesion ligands
 CC that bind to receptors such as integrin receptors, including fibronectin,
 CC laminin, LFA-1, MAC-1, p150, 95, vitronectin and gp11b/IIb receptors.
 CC Some of the peptides contain the amino acid sequence Arg-Gly-Asp (RGD).
 CC Others contain non-RGD sequences, for e.g. RCD sequences, and reverse
 CC orientation forms of amino acid residues. The synthetic peptides
 CC are useful in modulating cell adhesion, including adhesion related to
 CC fibronectin, as well as leukocyte adhesion to endothelial cells. They
 CC are also claimed to be useful in the study, diagnosis, treatment or
 CC prevention of diseases which relate to cell adhesion, e.g. adult
 CC respiratory distress syndrome (ARDS), thrombosis and inflammatory
 CC conditions.
 SQ Sequence 6 AA;
 Query Match 82.9%; Score 34; DB 31; Length 6;
 Best Local Similarity 100.0%; Pred. No. 5.63e+02;
 Matches 5; Conservative 0; Mismatches 0; Indels 0; Gaps 0;
 Db 1 rgdsp 5
 Qy 2 RGDSP 6
 RESULT 87
 ID R96371 standard; peptide; 6 AA.
 AC R96371;

05-JUL-1996 (first entry)
 RGD cyclic peptide, TL#825, binds alpha-v,beta3 integrin receptor.
 RGD-containing peptide: alpha-v, beta-3 integrin receptor; osteoclast;
 matrix; bone; inhibition; bone resorption; promote; endothelial cell;
 smooth muscle cell; restenosis; angiogenesis; cyclic.
 OS Synthetic.
 FH Key Location/Qualifiers
 FT modified_site 1
 FT modified_site 6 /note= "forms lactam bridge with Glu(6)"
 FT /note= "forms lactam bridge with Arg(1), amidated
 C-terminal"
 FT
 PN WO9528426-A2.
 PD 26-OCT-1995.
 PF 12-APR-1995; U04741.
 PR 13-APR-1994; US-227316.
 PR 08-SEP-1994; US-303052.
 PA (LJOL-) LA JOLLA CANCER RES FOUND.
 PI Cheng S, Ingram R, Mullen D, Tschopp J;
 WPI; 95-373767/48.
 DR Altering alpha-v, beta-3 integrin receptor-mediated binding of cell
 to matrix - using conformationally restrained peptide of RGD type,
 PT e.g. for treating inappropriate angiogenesis or for inhibiting bone
 resorption
 PT
 PS Claim 85: Page 79: 99pp: English.
 CC The sequences given in R95301-417 are non-naturally occurring RGD-
 containing peptides which alter the alpha-v, beta-3 integrin receptor
 CC binding of a cell to a matrix, such as the binding of an osteoclast to
 CC a matrix such as bone. These peptides inhibit bone resorption and can
 CC inhibit or promote alpha-v, beta-3-mediated cell attachment depending
 CC on whether they are present in the cell in a soluble form or are bound
 CC to a solid substrate. These peptides can be used in the amelioration
 CC of the severity of a pathology involving alpha-v, beta-3 receptor-
 CC mediated binding of a cell, such as an osteoclast, endothelial cell or
 CC smooth muscle cell to a matrix. They are used for treating conditions
 CC associated with restenosis or inappropriate or insufficient angiogenesis,
 CC or for inhibiting osteoclast binding to the matrix.
 SQ Sequence 6 AA;
 Query Match 82.9%; Score 34; DB 16; Length 6;
 Best Local Similarity 100.0%; Pred. No. 5.63e+02;
 Matches 5; Conservative 0; Mismatches 0; Indels 0; Gaps 0;
 Db 1 rgdsp 5
 QY 2 RGDSF 6
 FT modified_site 2 /label= MeGly
 FT J04264097-A.
 PN 18-SEP-1992.
 PD 16-FEB-1991; 044386.
 PF 16-FEB-1991; JP-044386.
 PA (ASAG) ASahi GLASS CO LTD.
 DR WPI; 92-361922/44.
 PT Peptide derivs. as contact inhibitor for animal cells - comprise
 PT synthesised cyclic peptide and have portion of aminoacid sequence
 PT of arginine-N-methyl:glycine-aspartic acid
 PS Disclosure; Page 3; 6pp: Japanese.
 CC The sequences given in R25311-19 are cyclic peptides which act as
 CC contact inhibitors of animal cells. They are resistant to
 CC decomposition by hydrolytic enzymes and can be maintained at high
 CC levels of activity for a long period in vivo. The peptides are
 CC cyclic and may have 1-16 pref. 1-4 amino acids.

05-JUL-1996 (first entry)
 RGD cyclic peptide, TL#825, binds alpha-v,beta3 integrin receptor.
 RGD-containing peptide: alpha-v, beta-3 integrin receptor; osteoclast;
 matrix; bone; inhibition; bone resorption; promote; endothelial cell;
 smooth muscle cell; restenosis; angiogenesis; cyclic.
 OS Synthetic.
 FH Key Location/Qualifiers
 FT modified_site 1
 FT modified_site 6 /note= "forms lactam bridge with Glu(6)"
 FT /note= "forms lactam bridge with Arg(1), amidated
 C-terminal"
 FT
 PN WO9528426-A2.
 PD 26-OCT-1995.
 PF 12-APR-1995; U04741.
 PR 13-APR-1994; US-227316.
 PR 08-SEP-1994; US-303052.
 PA (LJOL-) LA JOLLA CANCER RES FOUND.
 PI Cheng S, Ingram R, Mullen D, Tschopp J;
 WPI; 95-373767/48.
 DR Altering alpha-v, beta-3 integrin receptor-mediated binding of cell
 to matrix - using conformationally restrained peptide of RGD type,
 PT e.g. for treating inappropriate angiogenesis or for inhibiting bone
 resorption
 PT
 PS Claim 85: Page 79: 99pp: English.
 CC The sequences given in R95301-417 are non-naturally occurring RGD-
 containing peptides which alter the alpha-v, beta-3 integrin receptor
 CC binding of a cell to a matrix, such as the binding of an osteoclast to
 CC a matrix such as bone. These peptides inhibit bone resorption and can
 CC inhibit or promote alpha-v, beta-3-mediated cell attachment depending
 CC on whether they are present in the cell in a soluble form or are bound
 CC to a solid substrate. These peptides can be used in the amelioration
 CC of the severity of a pathology involving alpha-v, beta-3 receptor-
 CC mediated binding of a cell, such as an osteoclast, endothelial cell or
 CC smooth muscle cell to a matrix. They are used for treating conditions
 CC associated with restenosis or inappropriate or insufficient angiogenesis,
 CC or for inhibiting osteoclast binding to the matrix.
 SQ Sequence 6 AA;
 Query Match 82.9%; Score 34; DB 16; Length 6;
 Best Local Similarity 100.0%; Pred. No. 5.63e+02;
 Matches 5; Conservative 0; Mismatches 0; Indels 0; Gaps 0;
 Db 1 rgdsp 5
 QY 2 RGDSF 6
 FT modified_site 2 /label= MeGly
 FT J04264097-A.
 PN 18-SEP-1992.
 PD 16-FEB-1991; 044386.
 PF 16-FEB-1991; JP-044386.
 PA (ASAG) ASahi GLASS CO LTD.
 DR WPI; 92-361922/44.
 PT Peptide derivs. as contact inhibitor for animal cells - comprise
 PT synthesised cyclic peptide and have portion of aminoacid sequence
 PT of arginine-N-methyl:glycine-aspartic acid
 PS Disclosure; Page 3; 6pp: Japanese.
 CC The sequences given in R25311-19 are cyclic peptides which act as
 CC contact inhibitors of animal cells. They are resistant to
 CC decomposition by hydrolytic enzymes and can be maintained at high
 CC levels of activity for a long period in vivo. The peptides are
 CC cyclic and may have 1-16 pref. 1-4 amino acids.

SQ Sequence 6 AA;
 Query Match 82.9%; Score 34; DB 5; Length 6;
 Best Local Similarity 100.0%; Pred. No. 5.63e+02;
 Matches 5; Conservative 0; Mismatches 0; Indels 0; Gaps 0;
 Db 1 rgdsp 5
 QY 2 RGDSF 6
 FT modified_site 1
 FT modified_site 6 /note= "forms lactam bridge with Glu(6)"
 FT /note= "forms lactam bridge with Arg(1), amidated
 C-terminal"
 FT
 PN WO9528426-A2.
 PD 26-OCT-1995.
 PF 12-APR-1995; U04741.
 PR 13-APR-1994; US-227316.
 PR 08-SEP-1994; US-303052.
 PA (LJOL-) LA JOLLA CANCER RES FOUND.
 PI Cheng S, Ingram R, Mullen D, Tschopp J;
 WPI; 95-373767/48.
 DR Altering alpha-v, beta-3 integrin receptor-mediated binding of cell
 to matrix - using conformationally restrained peptide of RGD type,
 PT e.g. for treating inappropriate angiogenesis or for inhibiting bone
 resorption
 PT
 PS Claim 85: Page 79: 99pp: English.
 CC The sequences given in R95301-417 are non-naturally occurring RGD-
 containing peptides which alter the alpha-v, beta-3 integrin receptor
 CC binding of a cell to a matrix, such as the binding of an osteoclast to
 CC a matrix such as bone. These peptides inhibit bone resorption and can
 CC inhibit or promote alpha-v, beta-3-mediated cell attachment depending
 CC on whether they are present in the cell in a soluble form or are bound
 CC to a solid substrate. These peptides can be used in the amelioration
 CC of the severity of a pathology involving alpha-v, beta-3 receptor-
 CC mediated binding of a cell, such as an osteoclast, endothelial cell or
 CC smooth muscle cell to a matrix. They are used for treating conditions
 CC associated with restenosis or inappropriate or insufficient angiogenesis,
 CC or for inhibiting osteoclast binding to the matrix.
 SQ Sequence 6 AA;
 Query Match 80.5%; Score 33; DB 27; Length 5;
 Best Local Similarity 100.0%; Pred. No. 7.55e+02;
 Matches 5; Conservative 0; Mismatches 0; Indels 0; Gaps 0;
 Db 1 grgds 5
 QY 1 GRGDS 5
 FT modified_site 1
 FT modified_site 4 /note= "C15H31CO-Gly"
 FT /note= "Ser-OH"
 FT J05255105-A.
 PN 05-OCT-1993.
 PD 16-MAR-1992; 058460.
 PF 16-MAR-1992; JP-058460.
 PA (FUJF) FUJI PHOTO FILM CO LTD.
 DR WPI; 93-348360/44.
 PT Immuno-control drug for organ transplant rejection etc. - contains
 PT peptide having arginine, glycine, aspartic acid sequence
 PS Disclosure; Page 3; 11pp; Japanese.
 CC The sequences given in R44043-47 and R53144 represent examples of the
 CC claimed RGD containing peptide of the invention. These peptides all

CC correspond to the generic formulae:
 CC HO2-(CH2)m-C(O)-([X]-Arg-Gly-Asp-[Y])n-O-CH2CH(OR1)CH2OR2 or
 CC R3-([X]-Arg-Gly-Asp-[Y])n-Z
 CC [X], [Y] = amino acid or peptide residues;
 CC m = 1-5;
 CC n = 1-5;
 CC R1, R2 = H or 8-24C acyl or alkyl;
 CC R3 = 6-24C acyl;
 CC Z = hydroxyl or amino.
 CC These peptides form the active part of drugs which are used for the
 CC control of organ transplantation rejection or immune disorders such
 CC as systemic lupus.
 CC Sequence 5 AA;
 SQ

Query Match 80.5%; Score 33; DB 8; Length 5;
 Best Local Similarity 100.0%; Pred. No. 7.55e+02;
 Matches 5; Conservative 0; Mismatches 0; Indels 0; Gaps 0;

Db 1 grgds 5
 |||||
 Qy 1 GRGDS 5

RESULT 91
 ID W51241 standard; peptide; 5 AA.
 AC W51241;
 DT 12-AUG-1998 (first entry)
 DE Peptide which inhibits angiogenesis in vitro.
 KW Integrin alpha v beta 3 receptor; osteoporosis; cancer;
 KW arthritis; diabetic; retinopathy; disulphide; inhibitor.
 OS Synthetic.
 PN US5767071-A.
 PD 16-JUN-1998.
 PF 07-JUN-1995; 482106.
 PR 07-JUN-1995; US-482106.
 PA (IXSY-) IXSYS INC.
 PI Huse WD, Lee BA, Palladino MA, Varner JA;
 DR WPI; 98-361749/31.
 PT New non-RGD cyclic peptides that bind to integrin receptor - useful
 PT for treating e.g. osteoporosis, restenosis, cancer, arthritis and
 PT diabetic retinopathy
 PS Disclosure: Column 1; 23pp; English.
 CC The invention relates to cyclic, non Arg-Gly-Asp (non-RGD) peptides that
 CC bind to the alpha v beta 3 integrin receptor and have the sequence Arg
 CC Cys X1 Gly Asp Ser X2 Cys X3, where the cysteines are connected by a di-
 CC sulphide bond, X1 is Gly, Ser or Ala, and X2 and X3 are any amino acids.
 CC The peptides are useful for treating diseases involving alpha v beta 3
 CC receptors e.g. osteoporosis, restenosis, cancer, arthritis and diabetic
 CC retinopathy. The present sequence represents an Arg-Gly-Asp containing
 CC peptide which inhibits angiogenesis in vitro.
 SQ Sequence 5 AA;

Query Match 80.5%; Score 33; DB 31; Length 5;
 Best Local Similarity 100.0%; Pred. No. 7.55e+02;
 Matches 5; Conservative 0; Mismatches 0; Indels 0; Gaps 0;

Db 1 grgds 5
 |||||
 Qy 1 GRGDS 5

RESULT 92
 ID W65001 standard; peptide; 5 AA.
 AC W65001;
 DT 10-SEP-1998 (first entry)
 DE Synthetic angiogenesis inhibiting peptide.
 KW Angiogenesis; inhibitor; alpha-v beta-3 integrin receptor; treatment;
 KW disease; diagnosis; immunoassay; detection; cancer; inflammation;
 KW rheumatoid arthritis; osteoporosis; restenosis; retinopathy; glaucoma;
 KW retinal neovascularisation; diabetic retinopathy; macular degeneration.
 OS Synthetic.
 PN US5780426-A.
 PD 14-JUL-1998.

PF 07-JUN-1995; 482107.
 PR 07-JUN-1995; US-482107.
 PA (IXSY-) IXSYS INC.
 PI Huse WD, Lee BA, Palladino MA, Varner JA;
 DR WPI; 98-413114/35.
 PT New non-RGD peptides with specific affinity for the alphav, beta3
 PT integrin receptor - contain specific pentapeptide sequence, used for
 PT treatment or prevention of particularly angiogenic disorders such as
 PT cancer, inflammation, osteoporosis etc.
 PS Disclosure: Column 1; 20pp; English.
 CC W65001-W65010 are synthetic peptides used in an assay to determine which
 CC peptides bind to and inhibit the alpha-v beta-3 integrin receptor. Such
 CC inhibitors could be used to treat or prevent diseases mediated by the
 CC alpha-v beta-3 integrin receptor, particularly angiogenic diseases, e.g.
 CC cancer and their metastases, inflammation, rheumatoid arthritis,
 CC osteoporosis, restenosis, retinal neovascularisation (glaucoma), diabetic
 CC retinopathy and macular degeneration. The peptides are also useful for
 CC diagnosis of such diseases by detecting or quantifying the receptor in
 CC samples and can be used to raise antibodies useful as immunoassay
 CC reagents.
 SQ Sequence 5 AA;

Query Match 80.5%; Score 33; DB 33; Length 5;
 Best Local Similarity 100.0%; Pred. No. 7.55e+02;
 Matches 5; Conservative 0; Mismatches 0; Indels 0; Gaps 0;

Db 1 grgds 5
 |||||
 Qy 1 GRGDS 5

RESULT 93
 ID R34451 standard; peptide; 5 AA.
 AC R34451;
 DT 02-AUG-1993 (first entry)
 DE Fibronectin-like binding motif
 KW Immunoglobulin D; oligosaccharide; N-glycosylation;
 KW Igd antigen receptor complex; delta chain constant region.
 OS Homo sapiens.
 FH Key Location/Qualifiers
 FT binding_site 2..4
 FT /note= "fibrinogen binding motif"
 FT W09307291-A.
 PD 15-APR-1993.
 PR 09-OCT-1992; U08724.
 PR 11-OCT-1991; US-773328.
 PA (UVNY) UNIV NEW YORK STATE.
 PI Amin AR, Oppenheim JD, Thorbecke GJ;
 DR WPI; 93-134476/16.
 PT Use of immunoglobulin D-associated glycan cpds. - for inhibiting
 PT immune response, treating immune-mediated disease and enhancing
 PT immune response
 PS Disclosure: Page 53; 77pp; English.
 CC This pentapeptide sequence comprises the RGD motif typical of cell
 CC adhesion molecules, including fibronectin.
 SQ Sequence 5 AA;

Query Match 80.5%; Score 33; DB 7; Length 5;
 Best Local Similarity 100.0%; Pred. No. 7.55e+02;
 Matches 5; Conservative 0; Mismatches 0; Indels 0; Gaps 0;

Db 1 grgds 5
 |||||
 Qy 1 GRGDS 5

RESULT 94
 ID R29051 standard; peptide; 5 AA.
 AC R29051;
 DT 17-FEB-1993 (first entry)
 DE Peptide lipid contg. RGD.
 KW Synthetic; cell migration; inhibitor; cell adhesion membrane; cell
 KW culture body.

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OS Synthetic.
FH Key Location/Qualifiers
FT modified_site 1
FT modified_site 5 /note= "acylated"
FT modified_site 5 /note= "alkylated"
PN J04221394-A.
PD 11-AUG-1992. 333335.
PF 29-NOV-1990; JP-289493.
PR 26-OCT-1990; FUJI PHOTO FILM CO LTD.
PA (FUJI ) FUJI PHOTO FILM CO LTD.
DR WPI; 92-313678/38.
PT New synthetic peptide lipid(s) and salts - useful as cell
PT migration inhibitors, cell adhesion membranes or cell culture
PT bodies
PS Disclosure; Page 3; 9pp; Japanese.
CC The peptide sequence is an example of a highly generic sequence contg.
CC the RGD motif. Compounds contg. these lipid peptides are useful as
CC cell migration inhibitors in cell adhesion membranes or cell culture
CC bodies. See also R29048-54.
CC Sequence 5 AA;
SQ
Query Match 80.5%; Score 33; DB 5; Length 5;
Best Local Similarity 100.0%; Pred. No. 7.55e+02;
Matches 5; Conservative 0; Mismatches 0; Indels 0; Gaps 0;

Db 1 grgds 5
Qy 1 GRGDS 5

RESULT 95
ID R07442 standard; peptide; 5 AA.
AC R07442;
DT 03-FEB-1991 (first entry)
DE Peptide with anti-metastasis activity.
KW Metastasis; cancer.
OS Synthetic.
FH Key Location/Qualifiers
FT misc_difference 2
FT /label=Side chain
FT /note="t-butyloxycarbonyl or sialic acid deriv. or H"
FT misc_difference 4.0
FT /label=Side chain
FT /note="Benzoyloxycarbonyl or H"
PN J02233696-A.
PD 17-SEP-1990.
PF 06-MAR-1989; 053496
PR 06-MAR-1989; JP-053496.
PA (MBCT-) MECT KK.
DR WPI; 90-325187/43.
PT Penta peptide derivs. - and their prepn. for prevention of cancer
PT metastasis.
PS Claim 1; Page 1; 8pp; Japanese.
CC Peptide is useful in prevention of cancer metastasis and has a high
CC bioavailability.
CC Sequence 5 AA;
SQ
Query Match 80.5%; Score 33; DB 1; Length 5;
Best Local Similarity 100.0%; Pred. No. 7.55e+02;
Matches 5; Conservative 0; Mismatches 0; Indels 0; Gaps 0;

Db 1 grgds 5
Qy 1 GRGDS 5

RESULT 96
ID R48654 standard; peptide; 5 AA.
AC R48654;
DT 21-SEP-1994 (first entry)
DE RGD containing peptide #3 for attaching cells to a solid carrier.
KW RGD; solid substrate; solid carrier; attachment; culture;

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KW anchorage dependant cells; receptor; cell surface; release.
OS Synthetic.
PN EP-587205-A.
PD 16-MAR-1994.
PF 19-JUL-1993; 202102.
PR 23-JUL-1992; EP-202261.
PA (DUIN ) DUPHAR INT RES BV.
PI Brands R, Snoek MC;
DR WPI; 94-085139/11.
PT Solid carrier for culture of anchorage dependent cells -
PT non-covalently coated with a polypeptide contained specific
PT sequence for easy attachment and detachment of cells
PT Example 1; Page 3; 7pp; English.
PS The sequences given in R48652-54 are RGD containing peptides which
CC are used to coat a solid substrate in the production of a solid
CC carrier suitable for the attachment of cells. The peptide molecules
CC are directly bound to the substrate by a non-covalent linkage. The
CC solid carrier may be used for culturing anchorage dependant cells.
CC The epitope RGD is recognised by receptors on the cell surface for
CC cell attachment. The cells are subsequently released from the
CC carrier by simply lowering the pH of the growth medium to below 7,
CC optionally in the presence of trypsin. The ready release of the
CC cells from the solid carrier minimises the damage to cell surface
CC proteins.
CC Sequence 5 AA;
SQ
Query Match 80.5%; Score 33; DB 9; Length 5;
Best Local Similarity 100.0%; Pred. No. 7.55e+02;
Matches 5; Conservative 0; Mismatches 0; Indels 0; Gaps 0;

Db 1 grgds 5
Qy 1 GRGDS 5

RESULT 97
ID R5076 standard; peptide; 5 AA.
AC R5076;
DT 16-DEC-1994 (first entry)
DE Fibronectin gelatin binding domain inhibitory peptide.
KW Fibronectin; collagen-binding proteins; inhibit cell adhesion;
KW regulate cell matrix interactions; tumorigenesis; metastasis;
KW wound repair; homostasis; thrombospondin.
OS Synthetic.
PN W09411395-A.
PD 26-MAY-1994.
PF 09-NOV-1993; U11104.
PR 06-NOV-1992; US-973235.
PA (LOBR ) LUBRIZOL CORP.
PI Huang NZ, Kolp CJ, Sgarlata CR, Guo N, Krutzsch HC;
PI Negre E, Roberts DD, Sipes JM;
DR WPI; 94-183422/22.
PT Peptides which bind to fibronectin and collagen-binding proteins
PT - are used to inhibit fibronectin dependent cell adhesion to
PT collagen matrices
PT Disclosure; Page 36; 51pp; English.
PS Thrombospondin is a multi-functional protein capable of interacting
CC with numerous molecules, eg. fibronectin. Peptides have been
CC designed that are derived from the second type I repeat of human
CC endothelial cell thrombospondin. The peptides can be used to bind to
CC fibronectin or other related collagen-binding proteins to inhibit
CC fibronectin-dependent cell adhesion to collagen matrices. The peptides
CC interact directly with the gelatin-binding domain of fibronectin
CC and inhibits the fibronectin function.
CC Sequence 5 AA;
SQ
Query Match 80.5%; Score 33; DB 10; Length 5;
Best Local Similarity 100.0%; Pred. No. 7.55e+02;
Matches 5; Conservative 0; Mismatches 0; Indels 0; Gaps 0;

Db 1 grgds 5
Qy 1 GRGDS 5

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QY 1 GRGDS 5

RESULT 98
 ID R70477 standard; peptide; 5 AA.
 AC R70477;
 DT 20-DEC-1995 (first entry)
 DE Cancer metastasis inhibitory RGD peptide derivative #5.
 KW Cancer metastasis; adhesive peptide; core sequence; dextran; cancer;
 KW water soluble polysaccharide; metastasis; wound; immunogenicity.
 OS Synthetic.
 PN J0708999-A.
 PD 04-APR-1995.
 PF 17-SEP-1993; 254779.
 PR 17-SEP-1993; JP-254779.
 PA (JAPG) NIPPON ZEON KK.
 DR WPI; 95-167254/22.
 PT Cancer metastasis inhibitive peptide derivs. - useful for inhibition
 PT of cancer metastasis, healing of wounds and regulation of
 PT immunogenicity.
 PS Disclosure; Page 2; 6pp; Japanese.
 CC The peptides R70472-90 and R82907-24 are peptide derivatives which
 CC inhibit cancer metastasis. They are composed of an adhesive peptide with
 CC a core sequence selected from: RGD (R70472-85), YIGSR (R70486-90) or
 CC other sequence (R82907-24), linked to a water soluble polysaccharide,
 CC preferably a water soluble dextran, at the C-terminus. The peptides are
 CC useful in inhibiting cancer metastasis, healing wounds and the regulation
 CC of immunogenicity.
 SQ Sequence 5 AA;

Query Match 80.5%; Score 33; DB 14; Length 5;
 Best Local Similarity 100.0%; Pred. No. 7.55e+02;
 Matches 5; Conservative 0; Mismatches 0; Indels 0; Gaps 0;

Db 1 grgds 5
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 QY 1 GRGDS 5

RESULT 99
 ID R37131 standard; peptide; 5 AA.
 AC R37131;
 DT 19-APR-1994 (first entry)
 DE RGD peptide deriv. #2.
 KW Cell adhesion core sequence; inhibitor; cancer; metastasis; ss.
 OS Synthetic.
 FH Key Location/Qualifiers
 FT modified_site 1 /label= Suc-Gly
 FT J05222092-A.
 PN 31-AUG-1993.
 PD 16-JUL-1992; 189446.
 PF 18-DEC-1991; JP-335213.
 PR (FUJF) FUJII PHOTO FILM CO LTD.
 PA WPI; 93-309192/39.
 DR Peptide derivs. used as cancer metastasis inhibitors - contain
 PT the cell adhesion core sequence Arg-Gly-Asp followed by Ser
 PT Disclosure; Page 3; 10pp; Japanese.
 PS The sequences given in R37130-48 are peptide derivatives which
 CC correspond to the generic formula: R1-X-Arg-Gly-Asp-Ser-R2; R1 = H
 CC or an optionally substituted acyl, R2 = -OR3 or -NR4R5, R3, R4, R5 =
 CC H or 1-3C alkyl, and X = a bond or an amino acid or peptide residue.
 CC These peptide derivs. contain the cell adhesion core sequence Arg-
 CC Gly-Asp. They are useful as inhibitors of cancer metastasis.
 SQ Sequence 5 AA;

Query Match 80.5%; Score 33; DB 8; Length 5;
 Best Local Similarity 100.0%; Pred. No. 7.55e+02;
 Matches 5; Conservative 0; Mismatches 0; Indels 0; Gaps 0;

Db 1 grgds 5
 |||||
 QY 1 GRGDS 5

RESULT 100

ID W25177 standard; peptide; 5 AA.
 AC W25177;
 DT 05-JAN-1998 (first entry)
 DE RGD-peptide capable of binding cell adhesion molecules.
 KW RGD; arginine; glycine; aspartic acid; cell adhesion molecule;
 KW binding; bladder irrigation; tumour removal; endoscopic operation;
 KW transurethral resection; cancer; neoplasia.
 OS Synthetic.
 PN DEL9529909-A1.
 PD 20-FEB-1997.
 PF 15-AUG-1995; 029909.
 PR 15-AUG-1995; DE-029909.
 PA (PREP) FRESSENIUS AG.
 PI Boehle A.
 DR WPI; 97-133793/13.
 PT Endoscopic irrigation solns. - contg. peptide(s) that bind to cell
 PT adhesion molecules
 PS Claim 5; Page 8; 8pp; German.
 CC W25173-W25186 are peptides containing an RGD sequence or equivalent..
 CC The peptides are capable of binding to cell adhesion molecules and
 CC are used in aqueous irrigation solutions for use during and after
 CC endoscopic operations. Preferred irrigation solutions are
 CC electrolyte-free and contain 1 microg/ml to 100 mg/ml of one or more
 CC oligopeptides containing the amino acid sequences: RGD, LDV, IDA, DGEA,
 CC GRPP, VTL, YIGSR, KQAGDV and/or REDV (given in one letter amino acid
 CC code). The solutions are especially used for irrigating the bladder
 CC during and after tumour removal by transurethral resection. The
 CC peptides protect against recurrence of tumours.
 SQ Sequence 5 AA;

Query Match 80.5%; Score 33; DB 24; Length 5;
 Best Local Similarity 100.0%; Pred. No. 7.55e+02;
 Matches 5; Conservative 0; Mismatches 0; Indels 0; Gaps 0;

Db 1 grgds 5
 |||||
 QY 1 GRGDS 5

RESULT 101
 ID R27030 standard; peptide; 5 AA.
 AC R27030;
 DT 17-FEB-1993 (first entry)
 DE Peptide lipid contg. RGD.
 KW Synthetic; cell migration; inhibitor; cell adhesion membrane; cell
 KW culture body.
 OS Synthetic.
 FH Key Location/Qualifiers
 FT modified_site 1 /note= "acylated"
 FT modified_site 5 /note= "alkylated"
 FT J04221395-A.
 PN 11-AUG-1992.
 PD 29-NOV-1990; 333336.
 PF 26-OCT-1990; JP-289494.
 PR (FUJF) FUJII PHOTO FILM CO LTD.
 DR WPI; 92-313679/38.
 PT New synthetic peptide lipid(s) and salts - useful as cell
 PT migration inhibitors, cell adhesion membranes or cell culture
 PT bodies
 PS Disclosure; Page 3; 9pp; Japanese.
 CC The peptide sequence is an example of a highly generic sequence contg.
 CC the RGD motif. Compounds contg. these lipid peptides are useful as
 CC cell migration inhibitors in cell adhesion membranes or cell culture
 CC bodies. See also R27027-33.
 SQ Sequence 5 AA;

Query Match 80.5%; Score 33; DB 5; Length 5;
 Best Local Similarity 100.0%; Pred. No. 7.55e+02;

Matches 5; Conservative 0; Mismatches 0; Indels 0; Gaps 0;

Db 1 grgds 5
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Qy 1 GRGDS 5

RESULT 102

ID R35463 standard; peptide; 5 AA.
AC R35463;
DT 26-AUG-1993 (first entry)
DE propene-amide deriv. polymer metastasis inhibitor.
KW Low toxicity; higher cell adhesion ability; metastasis inhibition.
OS Synthetic.
FH Key Location/Qualifiers
FT modified_site 1
FT /note= "CH2-CCH3CONHCH2-CH2-CO-Gly,
FT CH2-CC2H5CONH-(CH2)4-CO-Gly or
FT CH2-CCH3CONHCH2-CH2-O-CH2-CO-Gly"
PN J05097699-A.
PD 20-APR-1993.
PR 04-OCT-1991; 258095.
PR 04-OCT-1991; JP-258095.
PA (FUJF) FUJI PHOTO FILM CO LTD.
DR WPI; 93-164370/20.
PT Low toxicity metastasis inhibitor - composed of propene-amide
PT deriv. polymer or its pharmacologically acceptable salts
PS Claim 1; Page 2; 12pp; Japanese.
CC The sequence is that of a polymer of propene amide deriv. which has
CC a higher cell adhesion ability, compared with that of the core
CC sequence of cell adhesive protein. It has various kinds of
CC biological activities e.g. metastasis inhibition and has low
CC toxicity.
SQ Sequence 5 AA;

Query Match 80.5%; Score 33; DB 7; Length 5;
Best Local Similarity 100.0%; Pred. No. 7.55e+02;
Matches 5; Conservative 0; Mismatches 0; Indels 0; Gaps 0;

Db 1 grgds 5
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|
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Qy 1 GRGDS 5

RESULT 103

ID R04610 standard; protein; 5 AA.
AC R04610;
DT 05-SEP-1990 (first entry)
DE Antiviral agent.
KW Antiviral; M2; poliovirus; polio; hepatitis.
OS Synthetic.
PN J02078631-A.
PD 19-MAR-1990.
PR 14-SEP-1988; 228843.
PR 14-SEP-1988; JP-228843.
PA (NIHA) Nippon Mining KK.
DR WPI; 90-129060/17.
PT Antiviral agent contg. tripeptide (unit) -
PT of basic aminoacid, then alanine, glycine or sarcosine, and
PT acidic aminoacid, effective against virus with protein-terminated DNA
PT or RNA.
PS Disclosure; 4pp; Japanese.
CC Peptide is effective against inhibiting propagation of DNA or RNA
CC bonded, protein containing viruses eg. Poliovirus, Hepatitis virus.
SQ Sequence 5 AA;

Query Match 80.5%; Score 33; DB 1; Length 5;
Best Local Similarity 100.0%; Pred. No. 7.55e+02;
Matches 5; Conservative 0; Mismatches 0; Indels 0; Gaps 0;

Db 1 grgds 5
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Qy 1 GRGDS 5

RESULT 104

ID R62948 standard; peptide; 5 AA.
AC R62948;
DT 15-AUG-1995 (first entry)
DE RGD contg. peptide is a constituent of a cancer metastasis inhibitor.
KW RGD peptide; Arg-Gly-Asp; cancer metastasis inhibitor;
KW high cell adhesion; fibronectin.
OS Synthetic.
PN J06306096-A.
PD 01-NOV-1994.
PR 31-JAN-1994; 009893.
PR 26-FEB-1993; JP-038677.
PA (FUJF) FUJI PHOTO FILM CO LTD.
DR WPI; 95-019276/03.
PT Peptide deriv. comprising several copies of the sequence
PT Arg-Gly-Asp covalently bonded to organic molecule, useful as
PT cancer metastasis inhibitor
PS Disclosure; Page 3; 13pp; Japanese.
CC R62945-50 are RGD contg. peptides that form constituents of an organic
CC mol. with a defined copy number of one of the peptides. The organic mol.
CC contg. the RGD peptide is a cancer metastasis inhibitor. The deriv.
CC shows substantially no toxicity and has a higher cell adhesion than the
CC core sequence of fibronectin.
SQ Sequence 5 AA;

Query Match 80.5%; Score 33; DB 13; Length 5;
Best Local Similarity 100.0%; Pred. No. 7.55e+02;
Matches 5; Conservative 0; Mismatches 0; Indels 0; Gaps 0;

Db 1 grgds 5
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Qy 1 GRGDS 5

RESULT 105

ID R24516 standard; Protein; 5 AA.
AC R24516;
DT 02-DEC-1992 (first entry)
DE Platelet antagonist pepetide 3.
KW Clinical effect; antagonist.
OS Synthetic.
PN J04134096-A.
PD 07-MAY-1992.
PR 21-SEP-1990; 253849.
PR 21-SEP-1990; JP-253849.
PA (SEKK) SEIKAGAKU KOGYO CO LTD.
DR WPI; 92-204525/25.
PT New peptide(s) comprising arginine-glycine-asparagine and
PT hyaluronic acid - useful as platelet antagonists with higher
PT activity than arginine-glycine-asparagine-valine
PS Disclosure; Page 5; 10pp; Japanese.
CC The sequences given in R24514-8 are peptides which are useful as
CC platelet antagonists. These peptides have higher activity than the
CC conventional peptide of Arg-Gly-Asp-Val. These peptides have a
CC clinical effect at a lower dose, dosage is 2.5-5.0 mg/kg/day.
SQ Sequence 5 AA;

Query Match 80.5%; Score 33; DB 5; Length 5;
Best Local Similarity 100.0%; Pred. No. 7.55e+02;
Matches 5; Conservative 0; Mismatches 0; Indels 0; Gaps 0;

Db 1 grgds 5
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Qy 1 GRGDS 5

RESULT 106

ID R36714 standard; peptide; 5 AA.
AC R36714;
DT 26-AUG-1993 (first entry)
DE Adhesion formation prevention RGD-contg. peptide.

KW Tissue repair; peritoneum; surgery; post-surgically; inhibition;
 KW platelet aggregation; cardiovascular; orthopedic; thoracic;
 KW ophthalmic; CNS; use.
 OS Synthetic.
 PN WO9308818-A.
 PD 13-MAY-1993.
 PF 06-NOV-1992; U09494.
 PR 07-NOV-1991; US-789231.
 PA (UYSC-) UNIV SOUTHERN CALIFORNIA.
 PI Dizerega GS, Rodgers KE;
 DR WPI: 93-167381/20.
 PT prevention of adhesion formation, partic. post-surgically - comprises
 PT administering a RGD-contg. peptide for a time sufficient to permit
 PT tissue repair
 PS Example; Page 18; 22pp; English.
 CC The sequence is that of an RGD-contg. peptide which is used in a
 CC method for prevention of adhesion formation for a time sufficient
 CC to permit tissue repair. The method is used for minimising or
 CC preventing adhesion formation, partic. in the peritoneum following
 CC surgery, but also for e.g. cardiovascular, orthopedic, thoracic,
 CC ophthalmic, CNS and other uses. In addn., the peptide inhibits
 CC platelet aggregation and does not induce inflammation or trauma
 CC at the site of administration.
 SQ Sequence 5 AA;

 Query Match 80.5%; Score 33; DB 7; Length 5;
 Best Local Similarity 100.0%; Pred. NO. 7.55e+02;
 Matches 5; Conservative 0; Mismatches 0; Indels 0; Gaps 0;

 Db 1 grgds 5
 |||||
 Qy 1 GRGDS 5

 RESULT 107
 ID W79653 standard; peptide; 6 AA.
 AC W79653;
 DT 08-DEC-1998 (first entry)
 DE Cyclo(1-alpha, 6-gamma)-Gly-Arg-Gly-Asp-Ser-Glu-NH2.
 KW Platelet aggregation inhibitor; antithrombotic; antimetastatic; cyclic.
 OS Synthetic.
 FH Key Location/Qualifiers
 FT Modified_site 1.6
 /note= "the amino group of Gly(1) is condensed with
 the gamma-carboxy of Glu(6) to give a cyclic molecule"
 FT Modified_site 2
 /note= "Arg or MeArg"
 FT US5643872-A.
 PN 01-JUL-1997.
 PD 26-AUG-1994; 296621.
 PR 19-DEC-1990; US-630124.
 PR 23-OCT-1989; US-425906.
 PR 28-SEP-1990; US-590635.
 PR 26-AUG-1994; US-296621.
 PA (SMIK) SMITHKLINE BEECHAM CORP.
 PI Ali FE, Samanen JM;
 DR WPI: 97-350267/32.
 PT New peptide derivatives - are useful in inhibiting platelet
 PT aggregation and clot formation, and for inhibiting reocclusion of
 PT blood vessels following fibrinolytic therapy.
 PS Disclosure; Column 7; 28pp; English.
 CC The patent describes new cyclic peptides which have a core of formula
 CC -B-Gly-Asp-, where B = a D- or L-amino acid chosen from Arg, HArg
 CC (i.e. homocysteine), (Me2)Arg, (Et2)Arg and Lys (or an alpha-substituted
 CC derivative of these). Cyclisation is effected through specific types of
 CC covalent linkages. The cyclic peptides are platelet aggregation and clot
 CC formation inhibitors. They may be used in treatment of acute myocardial
 CC infarction, deep vein thrombosis, pulmonary embolism, dissecting
 CC aneurysm, transient ischaemic attack, stroke, unstable angina,
 CC disseminated intravascular coagulation, septicemia, surgical or
 CC infectious shock, post-operative and post-partum trauma, cardiopulmonary
 CC bypass surgery, incompatible blood transfusion, abruptio placenta,
 CC thrombotic thrombocytopenic purpura, snake venom and immune diseases.

CC They may also be used for inhibiting reocclusion of blood vessels
 CC following fibrinolytic therapy. They may also be used in prevention of
 CC metastatic conditions.
 CC The present sequence is a specific example of the new peptides.
 SQ Sequence 6 AA;

 Query Match 80.5%; Score 33; DB 35; Length 6;
 Best Local Similarity 100.0%; Pred. NO. 7.55e+02;
 Matches 5; Conservative 0; Mismatches 0; Indels 0; Gaps 0;

 Db 1 grgds 5
 |||||
 Qy 1 GRGDS 5

 RESULT 108
 ID W68569 standard; peptide; 6 AA.
 AC W68569;
 DT 25-JAN-1999 (first entry)
 DE Conformationally constrained RGD peptide #6.
 KW Cell adhesion motif; RGD motif; affinity; receptor; stereochemistry;
 KW conformation; cyclisation; medical device; prosthesis; implant;
 KW cell attachment.
 OS Synthetic.
 PN US5827821-A.
 PD 27-OCT-1998.
 PF 16-JUL-1992; 914643.
 PR 29-DEC-1988; US-292517.
 PR 10-DEC-1987; US-131390.
 PR 15-OCT-1991; US-776839.
 PR 16-JUL-1992; US-914643.
 PA (BURN-) BURNHAM INST.
 PI Pierschbacher MD, Ruoslahti EI;
 DR WPI: 98-594031/50.
 PT New synthetic peptides - used for in vivo applications such as
 PT coating of medical devices, including prosthesis and implants, to
 PT aid the attachment of cells
 PS Disclosure; Column 5; 11pp; English.
 CC This is an example of a novel type of peptide containing the cell
 CC adhesion motif Arg-Gly-Asp (RGD) of formula: X-R1-R2-Arg-Gly-Asp-R3-R4-Y,
 CC where R2 = 0-5 amino acids; R3 = 0-5 amino acids; R1, R4 = amino acids
 CC connected by a bridge; X = H or one or more amino acids; and Y = OH, NH2
 CC or one or more amino acids. Preferably the novel peptides have 5-30 amino
 CC acid residues. The peptides have high affinity and specificity for their
 CC receptors by virtue of restrictions on their stereochemical conformation,
 CC restrictions which are provided by cyclisation. The peptides have various
 CC applications relating to their cell-adhesion properties e.g. as coatings
 CC of medical devices, including prosthesis and implants, to aid the
 CC attachment of cells. The peptides also have in vitro uses in coating of
 CC substrates, such as cell culture substrates, to promote cell adhesion.
 SQ Sequence 6 AA;

 Query Match 80.5%; Score 33; DB 37; Length 6;
 Best Local Similarity 100.0%; Pred. NO. 7.55e+02;
 Matches 5; Conservative 0; Mismatches 0; Indels 0; Gaps 0;

 Db 1 grgds 5
 |||||
 Qy 1 GRGDS 5

 RESULT 109
 ID R39600 standard; peptide; 6 AA.
 AC R39600;
 DT 08-DEC-1993 (first entry)
 DE Arg-Gly-Asp-contg. peptide.
 KW LRI; beta-integrin; cytoadhesin; ligand-binding specificity;
 KW polymorphonuclear neutrophil; integrin associated protein; IAP;
 KW platelet glycoprotein gpiIb/IIIa; fibrinogen.
 PN US5225531-A.
 PD 06-JUL-1993.
 PF 09-APR-1992; 866678.
 PR 09-APR-1992; US-866678.

PA (UNIW) UNIV WASHINGTON.
PI Adams SP, Brown EJ, Gresham HD;
DR WPI; 93-226662/26.
PT Peptide of lysine glycine alanine glycine aspartic acid valine
PT amino acid chain - comprises ligand for leukocyte response
PT integrin, inhibiting fibrinogen-dependent activation of
PT polymorphonuclear neutrophil
PS Disclosure; Column 2; 19pp; English.
CC A 15 amino acid peptide in the C-terminal region of the fibrinogen
CC gamma chain (384-411) which contains the sequence R39598 and
CC peptide GRGDSC (R39600) were investigated for their effect on
CC fibrinogen-stimulated ingestion of E1GG by polymorphonuclear
CC neutrophils (E1GG are sheep erythrocytes opsonised with IgG). Both
CC GRGDSC and the 15 amino acid fibrinogen gamma peptide were capable
CC of abrogating fibrinogen-stimulated ingestion; neither had an
CC effect on the level of ingestion by unstimulated PMN.
SQ Sequence 6 AA;

Query Match 80.5%; Score 33; DB 8; Length 6;
Best Local Similarity 100.0%; Pred. No. 7.55e+02;
Matches 5; Conservative 0; Mismatches 0; Indels 0; Gaps 0;

Db 1 grgds 5
|||||
QY 1 GRGDS 5

RESULT 110
ID R70482 standard; peptide; 6 AA.
AC R70482;
DT 20-DEC-1995 (first entry)
DE Cancer metastasis inhibitory RGD peptide derivative #10.
KW Cancer metastasis; adhesive peptide; core sequence; dextran; cancer;
KW water soluble polysaccharide; metastasis; wound; immunogenicity.
OS Synthetic.
PN J07089999-A.
PD 04-APR-1995.
PF 17-SEP-1993; 254779.
PR 17-SEP-1993; JP-254779.
PA (JAPG) NIPPON ZEON KK.
DR WPI; 95-167254/22.
PT Cancer metastasis inhibitive peptide derivs. - useful for inhibition
PT of cancer metastasis, healing of wounds and regulation of
PT immunogenicity.
PS Disclosure; Page 2; 6pp; Japanese.
CC The peptides R70472-90 and R82907-24 are peptide derivatives which
CC inhibit cancer metastasis. They are composed of an adhesive peptide with
CC a core sequence selected from: RGD (R70472-85), YIGSR (R70486-90) or
CC other sequence (R82907-24), linked to a water soluble polysaccharide,
CC preferably a water soluble dextran, at the C-terminus. The peptides are
CC useful in inhibiting cancer metastasis, healing wounds and the regulation
CC of immunogenicity.
SQ Sequence 6 AA;

Query Match 80.5%; Score 33; DB 14; Length 6;
Best Local Similarity 100.0%; Pred. No. 7.55e+02;
Matches 5; Conservative 0; Mismatches 0; Indels 0; Gaps 0;

Db 2 grgds 6
|||||
QY 1 GRGDS 5

RESULT 111
ID R92858 standard; peptide; 6 AA.
AC R92858;
DT 03-OCT-1996 (first entry)
DE Fibronectin fragment IVa1b as positive control for cell adhesion.
KW Interacellular adhesion; stimulation; inhibition; skin graft;
KW synthetic blood vessel; coating; endothelial cell; epidermal cell;
KW chemotactic attractor; wound healing; organ transplantation;
KW thrombosis; arteriosclerosis; cancer metastases.
OS Synthetic.

Query Match 80.5%; Score 33; DB 18; Length 6;
Best Local Similarity 100.0%; Pred. No. 7.55e+02;
Matches 5; Conservative 0; Mismatches 0; Indels 0; Gaps 0;

Db 1 grgds 5
|||||
QY 1 GRGDS 5

RESULT 112
ID R48653 standard; peptide; 6 AA.
AC R48653;
DT 21-SEP-1994 (first entry)
DE RGD containing peptide #2 for attaching cells to a solid carrier.
KW RGD; solid substrate; solid carrier; attachment; culture;
KW anchorage dependant cells; receptor; cell surface; release.
OS Synthetic.
PN EP-587205-A.
PD 16-MAR-1994.
PF 19-JUL-1993; 202102.
PR 23-JUL-1992; EP-202261.
PA (DUIN) DUPHAR INT RES BV.
PI Brands R, Snoek MC;
DR WPI; 94-085139/11.
PT Solid carrier for culture of anchorage dependent cells -
PT non-covalently coated with a polypeptide contained specific
PT sequence for easy attachment and detachment of cells
PS Example 1; Page 3; 7pp; English.
CC The sequences given in R48652-54 are RGD containing peptides which
CC are used to coat a solid substrate in the production of a solid
CC carrier suitable for the attachment of cells. The peptide molecules
CC are directly bound to the substrate by a non-covalent linkage. The
CC solid carrier may be used for culturing anchorage dependant cells.
CC The epitope RGD is recognised by receptors on the cell surface for
CC cell attachment. The cells are subsequently released from the
CC carrier by simply lowering the pH of the growth medium to below 7,
CC optionally in the presence of trypsin. The ready release of the
CC cells from the solid carrier minimises the damage to cell surface
CC proteins.

EH Key Location/Qualifiers
FT modified_site 6
FT /note= "C-terminal Cys residue for attaching
FT peptide to a carrier protein, e.g. BSA"
PN DE4430601-A1.
PD 29-FEB-1996.
PF 22-AUG-1994; 430601.
PR 22-AUG-1994; DE-430601.
PA (BEIE) BEIERSDORF AG.
PI Doerschner A, Eichner W, Kock K, Mielke H;
DR WPI; 96-130242/14.
PT peptide(s) that stimulate or inhibit cell to cell adhesion - used
PT e.g. to coat synthetic blood vessels with endothelial cells, to
PT prepare, or increase growth of skin grafts, to prevent thrombosis
PT etc.
PS Example 1; Page 7; 18pp; German.
CC Peptides contg. the highly generic sequence AA5-AA4-AA3-AA2-AA1-(AAx)n
CC where AA5 is Glu, Ser, Asp or Asn; AA4 is Leu or Ser, AA3 is Leu, Ile,
CC Phe or Gly; AA2 is Asp, Leu, Asn or Ser; AA1 is Gly, Pro or Asp; AAx
CC is any amino acid and n = 0 or 1 are claimed; AA5 or AA5-AA4 may be
CC absent. When two or more such peptides are attached to a carrier, the
CC product can be used for stimulating adhesion of eukaryotic cells in
CC vitro. Particular applications include coating synthetic blood vessels
CC with endothelial cells, preparing skin grafts using epithelial cells
CC or stimulating wound healing. When a single peptide is used it may
CC inhibit intercellular adhesion, making it useful for preventing
CC thrombosis or arteriosclerosis or to suppress cancer metastases. The
CC peptides can also be used as chemotactic attractors and for detecting/
CC quantifying cell-cell adhesion in vitro.
CC The present sequence is a fragment of fibronectin which includes
CC the Arg-Gly-Asp motif and which was used as a positive control in a
CC cell adhesion assay on the novel peptides.
SQ Sequence 6 AA;

Query Match 80.5%; Score 33; DB 18; Length 6;
Best Local Similarity 100.0%; Pred. No. 7.55e+02;
Matches 5; Conservative 0; Mismatches 0; Indels 0; Gaps 0;

Db 1 grgds 5
|||||
QY 1 GRGDS 5

SQ Sequence 6 AA;

Query Match 80.5%; Score 33; DB 9; Length 6;
 Best Local Similarity 100.0%; Pred. No. 7.55e+02;
 Matches 5; Conservative 0; Mismatches 0; Indels 0; Gaps 0;

Db 2 grgds 6
 |||||
 Qy 1 GRGDS 5

RESULT 113

ID W56676 standard; peptide; 6 AA.
 AC W56676;
 DT 14-AUG-1998 (first entry)
 DE Peptide derived from the heparin binding site of plasma fibrinonection.
 KW Cell adhesion activity; heparin binding site; human;
 KW plasma fibrinonection; inhibition; cancer metastasis.
 OS Synthetic.
 PN Homo sapiens.
 FN EP-837074-A2.
 PD 22-APR-1998.
 PF 18-SEP-1997; 116293.
 PR 19-SEP-1996; JP-248247.
 FA (HISM) HISAMITSU PHARM CO LTD.
 PI Fukai F, Katayama T;
 DR WPI; 98-219072/20.
 PT Peptide(s) that inhibit cell adhesion - comprising fragments of heparin-binding site of fibrinonection.
 PS Example 1; Page 12; 21pp; English.
 CC Synthetic peptides W37820-24 and W56673-80 have cell adhesion inhibition activity. All the peptides were modified with maleimide-activated Keyhole Limpet Haemocyanine in order to improve their solubility.
 CC The peptides are derived from a part of the heparin binding site of human plasma fibrinonection. Peptide W56680 has the strongest cell adhesion inhibition activity. The peptides are used for inhibiting cancer metastasis.
 SQ Sequence 6 AA;

Query Match 80.5%; Score 33; DB 31; Length 6;
 Best Local Similarity 83.3%; Pred. No. 7.55e+02;
 Matches 5; Conservative 0; Mismatches 1; Indels 0; Gaps 0;

Db 1 gredsp 6
 |||||
 Qy 1 GRGDSP 6

RESULT 114

ID W43308 standard; peptide; 5 AA.
 AC W43308;
 DT 03-APR-1998 (first entry)
 DE Control peptide.
 KW Osteopontin; inflammation; nitric oxide; gamma-interferon; gamma-IFN;
 KW lipopolysaccharide; ischaemia; septic shock; lipopolysaccharide.
 OS Synthetic.
 PN US5695761-A.
 PD 09-DEC-1997.
 PF 23-DEC-1993; 173116.
 PR 23-DEC-1993; US-173116.
 FA (UTNE-) UNIV NEW JERSEY MEDICINE & DENTISTRY.
 PI (RUTF) UNIV RUTGERS STATE.
 PI Denhardt DT, Heck DE, Hwang S, Laskin DL, Laskin JD, Lopez CA;
 DR WPI; 98-041235/04.
 PT Treatment of inflammatory disorders mediated by nitric oxide - with osteopontin protein or peptide(s)
 PS Example 1; Column 19; 22pp; English.
 CC The invention relates to a 20 amino acid fragment of osteopontin that contains an epitope GRGDS and suppresses expression of inducible nitric oxide synthase mRNA. A 100-fold molar excess of the peptide GRGDS, but not the present control peptide GRGES, was able to reverse osteopontin-mediated suppression of gamma-interferon-induced nitric oxide

CC production. The molecule of the invention is useful for treating an inflammatory disease or disorder associated with nitric oxide activity and/or gamma-interferon (gamma-IFN) or lipopolysaccharide, especially ischaemia, septic shock and cell-mediated immune response, located in the inner ear or kidney.
 SQ Sequence 5 AA;

Query Match 78.0%; Score 32; DB 27; Length 5;
 Best Local Similarity 80.0%; Pred. No. 1.01e+03;
 Matches 4; Conservative 1; Mismatches 0; Indels 0; Gaps 0;

Db 1 grges 5
 |||||
 Qy 1 GRGDS 5

RESULT 115

ID R04611 standard; protein; 5 AA.
 AC R04611;
 DT 05-SEP-1990 (first entry)
 DE Antiviral agent.
 KW Antiviral; M2; poliovirus; polio; hepatitis.
 OS Synthetic.
 PN J02078631-A.
 PD 19-MAR-1990.
 PF 14-SEP-1988; 228843.
 PR 14-SEP-1988; JP-228843.
 PA (NIHA) Nippon Mining KK.
 DR WPI; 90-129060/17.
 PT Antiviral agent contg. tri:peptide (unit) - of basic aminoacid, then alanine, glycine or sarcosine, and acid aminoacid, effective against virus with protein-terminated DNA or RNA.
 PS Disclosure; 4pp; Japanese.
 CC Peptide is effective against inhibiting propagation of DNA or RNA bonded, protein containing viruses eg. Poliovirus, Hepatitis virus.
 SQ Sequence 5 AA;

Query Match 78.0%; Score 32; DB 1; Length 5;
 Best Local Similarity 80.0%; Pred. No. 1.01e+03;
 Matches 4; Conservative 1; Mismatches 0; Indels 0; Gaps 0;

Db 1 grges 5
 |||||
 Qy 1 GRGDS 5

RESULT 116

ID R47385 standard; Protein; 5 AA.
 AC R47385;
 DT 22-JUN-1994 (first entry)
 DE PH-30 beta disintegrin control peptide.
 KW PH-20; PH-30; contraceptive; fertilisation; sperm surface protein;
 KW vaccine; sperm-egg fusion.
 OS Rubella virus.
 PN W09325233-A.
 PD 23-DEC-1993.
 PF 10-JUN-1993; U05640.
 PR 12-JUN-1992; US-897883.
 PA (UYCO-) UNIV CONNECTICUT.
 PI Myles DG, Primakoff P;
 DR WPI; 94-007200/01.
 PT Contraceptive vaccine for reducing sperm-egg fusion - comprises peptide from sperm surface protein which stimulates antibody Prod'n.
 PS Example 7; Page 27; 79pp; English.
 CC Example 7 describes the use of PH-30 beta disintegrin peptides as inhibitors of sperm fusion to egg plasma membrane.
 CC Modified peptides R47382-83 and control peptides (R47384-85) were tested. From observations it was concluded that the PH-30 beta disintegrin domain represents an epitope which is critical in sperm-egg fusion.
 SQ Sequence 5 AA;

FT	modified_site	1	
FT			/note= "forms lactam bridge with Glu(6)"
FT	modified_site	6	
FT			/note= "forms lactam bridge with Arg(1), amidated
FT			C-terminal"
FT			
PN	W09528426-A2.		
PD	28-OCT-1995.		
PD	12-APR-1995; U04741.		
PR	13-APR-1994; US-227316.		
PR	08-SEP-1994; US-303052.		
PA	(LJOL-) LA JOLLA CANCER RES FOUND.		
PI	Cheng S, Ingram R, Mullen D, Tschopp J;		
DR	WPI; 95-373767/48.		
PT	Altering alpha-v, beta-3 integrin receptor-mediated binding of cell		
PT	to matrix - using conformationally restrained peptide of RGD type,		
PT	e.g. for treating inappropriate angiogenesis or for inhibiting bone		
PT	resorption		
PS	Claim 85; Page 79; 99pp; English.		
CC	The sequences given in R96301-417 are non-naturally occurring RGD-		
CC	containing peptides which alter the alpha-v, beta-3 integrin receptor		
CC	binding of a cell to a matrix, such as the binding of an osteoclast to		
CC	a matrix such as bone. These peptides inhibit bone resorption and can		
CC	inhibit or promote alpha-v, beta-3-mediated cell attachment depending		
CC	on whether they are present in the cell in a soluble form or are bound		
CC	to a solid substrate. These peptides can be used in the amelioration		
CC	of the severity of a pathology involving alpha-v, beta-3 receptor-		
CC	mediated binding of a cell, such as an osteoclast, endothelial cell or		
CC	smooth muscle cell to a matrix. They are used for treating conditions		
CC	associated with restenosis or inappropriate or insufficient angiogenesis		
CC	or for inhibiting osteoclast binding to the matrix.		
SQ	Sequence 6 AA;		

FT		/note= "alkylated"
PN	J04221395-A.	
PD	11-AUG-1992.	
PF	29-NOV-1990:	333336.

PR 26-OCT-1990; JP-289494.
PA (FUJF) FUJI PHOTO FILM CO LTD.
DR WPI; 92-313679/38. DR
PT New synthetic peptide lipid(s) and salts - useful as cell

PT bodies. Disclose; Page 3; 9pp; Japanese.
PS The peptide sequence is an example of a highly generic sequence contg.
CC the RGD motif. Compounds contg. these lipid peptides are useful as
CC cell migration inhibitors in cell adhesion membranes or cell culture
CC bodies. See also R27027-33.
SQ Sequence 5 AA;

Query Match 75.6%; Score 31; DB 5; Length 5;
Best Local Similarity 80.0%; Pred. 1.34e+03;
Matches 4; Conservative 1; Mismatches 0; Indels 0; Gaps 0.

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Db      1 grgdt 5
      ||||:
Qy      1 GRGDS 5

RESULT 120
ID R29053 standard; peptide; 5 AA.
AC R29053;
DT 17-FEB-1993 (first entry)
DE Peptide lipid contg. RGD.
KW Synthetic; cell migration; inhibitor; cell adhesion membrane; cell
  culture body.
OS Synthetic.
FH Key Location/Qualifiers
FT modified_site 1 /note= "acylated"
FT modified_site 5 /note= "alkylated"
FT J04221394-A.
FN 11-AUG-1990; 333335.
PD 29-NOV-1992; JP-289493.
PR 26-OCT-1990; JP-289493.
PA (FUJIF ) FUJIFILM PHOTO FILM CO LTD.
DR WPI; 92-333678/38.
PT New synthetic peptide lipid(s) and salts - useful as cell
  migration inhibitors, cell adhesion membranes or cell culture
  bodies
PS Disclosure: Page 3; 9pp; Japanese.
CC The peptide sequence is an example of a highly generic sequence contg.
  the RGD motif. Compounds contg. these lipid peptides are useful as
  cell migration inhibitors in cell adhesion membranes or cell culture
  bodies. See also R29048-54.
SQ Sequence 5 AA;

Query Match 75.6%; Score 31; DB 5; Length 5;
Best Local Similarity 80.0%; Pred. NO. 1.34e+03;
Matches 4; Conservative 1; Mismatches 0; Indels 0; Gaps 0;

Db      1 grgdt 5
      ||||:
Qy      1 GRGDS 5

RESULT 121
ID R24517 standard; Protein; 5 AA.
AC R24517;
DT 02-DEC-1992 (first entry)
DE Platelet antagonist peptide 4.
KW Clinical effect; antagonist.
OS Synthetic.
PN J04134096-A.
PD 07-MAY-1992.
PF 21-SEP-1990; 253849.
PR 21-SEP-1990; JP-253849.
PA (SEGG ) SEIKAGAKU KOGYO CO LTD.
DR WPI; 92-204525/25.
PT New peptide(s) comprising arginine-glycine-asparagine and
  hyaluronic acid - useful as platelet antagonists with higher
  activity than arginine-glycine-asparagine-valine
PS Disclosure: Page 5; 10pp; Japanese.
CC The sequences given in R24514-8 are peptides which are useful as
  platelet antagonists. These peptides have higher activity than the
  conventional peptide of Arg-Gly-Asp-Val. These peptides have a
  clinical effect at a lower dose, dosage is 2.5-5.0 mg/kg/day.
SQ Sequence 5 AA;

Query Match 75.6%; Score 31; DB 5; Length 5;
Best Local Similarity 80.0%; Pred. NO. 1.34e+03;
Matches 4; Conservative 1; Mismatches 0; Indels 0; Gaps 0;

Db      1 grgda 5
      ||||:
Qy      1 GRGDS 5

RESULT 122
ID W79659 standard; peptide; 6 AA.
AC W79659;
DT 08-DEC-1998 (first entry)
DE Cyclo(1,6)-Pro-Arg-Gly-Asp-Gly-D-Pro.
KW Platelet aggregation inhibitor; antithrombotic; antimetastatic; cyclic.
  Synthetic.
FH Key Location/Qualifiers
FT Misc_difference 6 /note= "D-form residue"
FT Modified_site 1.6
  with the carboxy of D-Pro(6) to give a cyclic molecule"
PN US5643872-A.
PD 01-JUL-1997. 296621.
PR 26-AUG-1994; US-630124.
PR 23-OCT-1989; US-425906.
PR 28-SEP-1990; US-590635.
PR 26-AUG-1994; US-296621.
PA (SMIK ) SMITHKLINE BEECHAM CORP.
PI All FE, Samanen JM;
DR WPI; 97-350267/32.
PT New peptide derivatives - are useful in inhibiting platelet
  aggregation and clot formation, and for inhibiting reocclusion of
  blood vessels following fibrinolytic therapy.
PS Disclosure: Column 7; 28pp; English.
CC The patent describes new cyclic peptides which have a core of formula
  -B-Gly-Asp-, where B = a D- or L-amino acid chosen from Arg, HArg
  (i.e. homocysteine), (Me2)Arg, (Et2)Arg and Lys (or an alpha-substituted
  derivative of these). Cyclisation is effected through specific types of
  covalent linkages. The cyclic peptides are platelet aggregation and clot
  formation inhibitors. They may be used in treatment of acute myocardial
  infarction, deep vein thrombosis, pulmonary embolism, dissecting
  aneurysm, transient ischaemic attack, stroke, unstable angina,
  disseminated intravascular coagulation, septicemia, surgical or
  infectious shock, post-operative and post-partum trauma, cardiopulmonary
  bypass surgery, incompatible blood transfusion, abruptio placenta,
  thrombotic thrombocytopenic purpura, snake venom and immune diseases.
  They may also be used for inhibiting reocclusion of blood vessels
  following fibrinolytic therapy. They may also be used in prevention of
  metastatic conditions.
CC The present sequence is a specific example of the new peptides.
SQ Sequence 6 AA;

Query Match 75.6%; Score 31; DB 35; Length 6;
Best Local Similarity 80.0%; Pred. NO. 1.34e+03;
Matches 4; Conservative 1; Mismatches 0; Indels 0; Gaps 0;

Db      2 rgdgp 6
      ||||:
Qy      2 RGDSF 6

Search completed: Thu Dec 23 10:18:32 1999
Job time : 66 secs.

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